

The CHILDREN'S NEWSPAPER

AND CHILDREN'S PICTORIAL

The Story of the World Today for the Men and Women of Tomorrow

Number 170

Week Ending
JUNE 17, 1922

EDITED BY ARTHUR MEE

Postage
1d. Inland, 1d. Abroad

Every Thursday 2d

HOW TWO MEN BORED THROUGH A ROCK

ADVENTURE OF TWO BROTHERS

TUNNELLING THROUGH A ROCK

Extraordinary Feat of Courage
on a South African Farm

COPYING MOSES

Olive Schreiner wrote as a novel *The Story of an African Farm*. Here is a true story of an African farm.

Famous in literature is the song of gratitude which a well-meaning but puzzle-headed friar raised, thanking God for causing navigable rivers to flow by large towns. The good man failed to recognise that the rivers did not follow the course of the towns, but that men built towns in order to benefit from the rivers. London owes everything to her river, as Mesopotamia once owed her magnificence and riches to her Tigris and Euphrates.

A town has a beginning; it rises from the first dwelling erected by a river's brim, with water for power, for fertility, and highway. Perhaps a town will rise round the home of two of our Dutch fellow-subjects in the Somerset East district of South Africa. Let us hope so, for no humble individual effort of the kind was ever finer than that of these two enterprising men.

Back to the Land

After a spell of profitable mining experience on the Rand, they answered the call of Nature, and with their earnings and their experience they went back to the land. They bought 5000 acres of excellent ground north of Port Elizabeth, running along the Great Fish River, where every prospect was pleasing and only irrigation was vile.

With a bounteous river flanking a farm water-supply should present no difficulties to farmers; but it did to these two brothers, for between the farm and the life-giving stream lay a solid wedge of rock 500 yards wide. For all the use it was to the farmers the river might as well have been in another continent.

Meeting in a Tunnel

The rock was a barrier as formidable as a mountain range as long as it remained unconquered. But the challenge presented by the problem of the dry land on the one hand, and the precious, wasting water on the wrong side of the rocky barrier on the other hand, summoned our farmers, to efforts which are like a brief summary of the whole struggle of civilised endeavour against Nature.

These splendid Dutchmen determined to turn their mining skill to account in a novel direction. They mined the great reef separating the farm from the water for which it gasped. One brother began at the river end of the rock; the other began on the farm side of the obstacle. They bored and mined toward each other. They had no help from the Government, they had no professional



It is hard to keep cool sometimes, but these little ladies, walking in the Park, seem to manage it

Keeping Cool

experts to direct their energies, for instead of mining for gold or diamonds they were mining for the water of life.

For thirty months they toiled at their task, and a few weeks ago daylight flashed through a tunnel in rock which had been a solid substance for millions of years. The brothers met in the tunnel, midway, only a few inches wide of a perfectly straight cut from farm to river. They had made a tunnel through the obstructive rock 1550 feet long, six feet high and seven feet wide, a channel through which to lead a regulated flow of water from river to farm.

While this work was proceeding, the men and their helpers, labouring after the example set by the beavers, constructed a dam across the river 130 feet long, so as to give them always a sufficient depth of water, and a 36 feet siphon 200 feet long through the river to conduct the water to the tunnel. So now the rich possibilities of the farm became actualities. It needed only water to make a waste blossom like the rose.

There is nothing better than this, perhaps, in the whole annals of farm-

ing, yet it is only another entry in the tremendous volume of history recounting how, when stern Nature has said to men "Perish!" men have refused to perish and have won their way to triumph. These two men have done what Moses did. Moses struck the rock and made the water flow, and these Dutchmen struck the rock and brought the river through.

Today there is the farm with its river linked to it by the tunnel in the rock; who knows that in some tomorrow a city may not grow up around it?

CYCLIST'S SURPRISE

How the Cow Crossed the Lake

A correspondent wonders if we have ever seen a cow dive and swim across a lake. A Birmingham cyclist, he informs us, did a few days ago.

Finding his progress blocked by a cow standing at the edge of a lake, he extended his hand with the intention of urging her on. But the cow immediately took a header into the water, swam across the lake, and walked out gracefully on the other side.

THE LOST TRAVELLERS

PITIFUL DISCOVERY IN THE MELTING SNOWS

How 22 People Crossed the Alps in Search of Work

AND WHAT HAPPENED TO THEM

Melting snow in the High Alps between France and Italy has just revealed a terrible misadventure which befell a number of Italians who were working their way across a mountain pass.

Toward the end of November a party of 22, including one woman, set off from the Italian side. They were in search of labourers' jobs in France, and wanted to slip across the frontier without passports, which they could not afford. They engaged an Alpine guide.

Up and up they went, and soon found themselves amid snow that had fallen earlier than usual. However, the guide was familiar with the path and was able to keep to it.

Caught in a Snowstorm

They pressed on as quickly as they could, knowing that if a storm came on while crossing the high pass they would run the risk of being frozen to death. They hoped to be able to get down to the nearest French village before the snow began to fall again.

They reached the summit safely and began to descend. Now it seemed certain that they were out of danger. But suddenly the heavy clouds which had been gathering grew darker, a wind blew with fearful violence, and they were caught in a blinding snowstorm which blotted out everything from their sight.

There was nothing for it now but to shelter. They found a spot where an overhanging rock gave them a little protection, and, wrapping their mountaineers' cloaks round their heads, they waited for the storm to abate its fury.

Rush of the Avalanche

But, while they waited, they heard noises like the booming of great guns. Then they knew that huge masses of snow were slipping down from the heights. Avalanches these snowfalls really were, though not technically avalanches because these are usually of ice.

The peasants hoped their rock would protect them, even if a sliding mass should happen to drop just where they were; but, unhappily for them, their confidence was misplaced. Down the mountain-side came an enormous volume of snow. It was impossible to escape it. They heard a roar, and it was upon them instantly. It buried them twenty feet deep.

There they stayed all the winter, when the snow was frozen into ice these poor travellers were frozen with it. The warm sun of early summer melted it, and French gendarmes, patrolling the mountain passes, found their bodies.

A tragic ending, truly, to these poor people's search for work. See *World Map*

FRIEND OF R.L.S. MISSIONARY WHO BURIED HIM PASSES AWAY

The Poet's Grave on the Far-Away Hilltop

HERE HE LIES WHERE HE LOVED TO BE

There has just passed away the man who buried Robert Louis Stevenson on that far-away hilltop above the Pacific Ocean in Samoa.

As a missionary in Samoa, the Rev. William Edward Clarke was a great friend of the poet, and the account of the last hours of R.L.S. tells us that "Mr. Clarke was now come, an old and valued friend. He knelt and prayed as the life ebbed away."

It was Mr. Clarke who read the burial service on the hilltop, and the beautiful poem on R.L.S. by Mr. Edmund Gosse, which arrived just in time for R.L.S. to read it with tears in his eyes.

One of the pathetic stories of the world is the story of R.L.S. living and dying out in lonely Samoa, and we may give here the story of his lonely grave on the mountain top as it is told in Arthur Mee's Hero Book.

The Window in the Study

He loved this high place (we read), and when he built his house he made a window in his study so that, as he sat at his books, he could see the top of the mountain. High up it is, through the tangled bush, by zigzag, rocky ways, almost too difficult for a man to climb.

R.L.S. was talking gaily, to his wife one day when a microbe had its way—a blood-vessel burst in his brain, and in two hours he was dead.

They lowered the Union Jack that flew over the house and covered his body with it, and as he lay wrapped in the flag the Samoan people came up to pay him their last tribute.

They loved him as they had never loved another white man. After he had built his house, Vailima, they made him a road to his new home, the Road of the Loving Heart, as he had called it. Now they came with their last presents, the beautiful mats that the body of a great Samoan is wrapped in when he dies. They brought their mats, and all night they sat round the body, silent. "This is the Samoan way," they said, and there they stayed. "You cannot realise what giving these mats means," a member of the Stevenson household wrote; "they are the Samoan's whole fortune. It takes a woman a year to make one."

Up the Steep Slopes

With men like these it was easy even to dig a grave on the mountain-top. Up the steep slopes, through the thick brushwood, they took the body of R.L.S., and in that peaceful place they left him. The tomb is a solid block of concrete rising in the middle of a small plateau. A gap in the trees was cut to let the sunshine through. Spreading in front, beyond the distant hills, the shining gleams of waterfalls, and the gliding river, is the Pacific Ocean, and in the valley lies his house Vailima, with its warm red roofs, its green lawns, its hedges ablaze with colour, and the spirit of a poet hovering over it evermore.

Requiem That Will Never Die

On one side of the tomb are the words Ruth said to Naomi 3000 years ago:

Whither thou goest, I will go; and where thou lodgest, I will lodge; thy people shall be my people, and thy God my God; where thou diest will I die, and there will I be buried.

On the other side is the Requiem that will never die out of the world until this tomb and every other visible thing on earth has perished:

Under the wide and starry sky,
Dig the grave and let me die.
Glad did I live, and gladly die,
And I laid me down with a will.
This be the verse you grave for me:
Here he lies where he longed to be;
Home is the sailor, home from sea,
And the hunter home from the hill.

HALF A STEP FORWARD

M.P.s Admit Cruelty but
Do Not Stop It

ANIMALS WHO SUFFER TO PLEASE THE PUBLIC

The members of the House of Commons who were appointed to enquire into the conditions in which animals are trained and exhibited in public have reported that much cruelty exists, but they do not propose that such exhibitions should stop.

They are in favour of more severe punishment being imposed upon those who treat performing animals in a brutal way, and suggest that all animal trainers shall be registered and watched.

A committee of nine—five appointed by the Home Office, two by the animal protection societies, two by the trainers and exhibitors—should, the M.P.s say, have power to prevent any performance they consider cruel.

It is an entirely unsatisfactory proposal. The M.P.s seem to have had less anxiety about the suffering of animals than about the possibility of trainers being hurt. They say there is more need to look after large and powerful animals than gentle and small ones, because, apparently, the smaller creatures cannot turn on their tormentors.

What is really needed is not a report about facts that are well known, but a state of public opinion which will revolt against performances by trained animals, as degrading and as the cause of suffering to most of them.

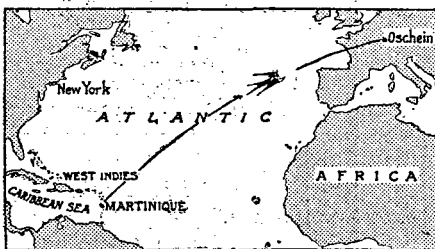
The C.N. hopes that the humanity and sympathy of its readers will show itself by going much farther than this inadequate report of the politicians. The one thing needful is that animal performances should stop once and for all.

THE COBBLER'S REPLY Brought by a Little Bird REMARKABLE JOURNEY OF A SWALLOW

Last autumn, just before the swallows flew southward, an inhabitant of a little place near Strasburg, in Alsace, caught one and put a ring on its leg, as is often done for scientific purposes, bearing this inscription:

In 1921 I was the guest of Greiner, at Oschein, Alsace.

The other day M. Greiner thought he would try to catch another swallow; the birds had just come back and were



The route of the swallow

building nests round his house. He had caught the first one by putting his hand suddenly on a nest, so he did this again, and was again successful.

He had captured the same bird! It still had on its leg his little ring, and another one on which were engraved these words:

I have stayed with Joseph Basey, boot-maker, Island of Martinique, who sends greetings to his Alsatian friend.

The swallow had returned to its old nesting-place and so delivered the message from far-away Martinique, in the Caribbean Sea.

Was it chance? Do the birds regularly build their nests in the same spots? It would be interesting to know.

NEWS FROM EVERYWHERE



Gathered by

Canada has one motor-car for every eighteen inhabitants.

A swarm of bees in Bedfordshire weighed nearly eight pounds, and contained 40,000 bees.

There are more telephones in the Equitable Building, one of New York's great sky-scrapers, than in all Bulgaria.

Under Prohibition the death-rate of infants in New York State has fallen by nearly one-quarter.

Crowns 200 a Penny

Austrian crowns, worth tenpence each—24 to a pound—before the war, are now 49,000 to the pound.

People Eating Less Sugar

In the United Kingdom last year the sugar consumption was 54·7 pounds per head, as against 76·8 pounds in the previous year.

Her Golden Deed

We learn that a school teacher has just sent to the Russian Famine Fund £100, which she had been saving up for her old age.

The Whistling Tyre

A safety valve has been invented for use on motor tyres. When the tyres are over-inflated the valve gives out a whistling sound.

A Library that Will Speak

The Prussian State Library in Berlin is organising a Voice Section, which will include records of the voices of famous men of all nations.

London Street Peril

In the first three months of this year there were 11,000 accidents in London streets, and 130 people were killed, all but ten by motor-cars.

The Troubled Ocean Bed

Ocean bed upheavals are supposed to have caused the sea at Berwick-on-Tweed twice to have risen three feet, and then subsided again.

World's Wheat Crop

The wheat crop this year will probably be less than last, as only 117 million acres, or two per cent. less than 1921, is under wheat in the Northern Hemisphere.

Examination Result by Wireless

A Cambridge student who has just concluded his studies and returned to Canada arranged for the result of his examination to be wirelessed to him on the high seas.

Poor Men!

Neither Napoleon nor Saint Paul would have been pronounced medically fit according to present-day standards, said a doctor examined before a House of Commons Committee.

Keeping Out an Enemy

Prohibition in the United States has been strengthened by a decision of the Supreme Court that no alcoholic liquors may be even passed through the country or re-shipped in American waters.

Oil on the Sea

To save coast birds from being injured by oil discharged from ships at sea, a Bill is to be introduced in Parliament making it illegal to throw it on the water within three miles of shore.

Buried for Centuries

Marcus Aurelius, the famous author of noble Meditations, was Roman Emperor when a coin was struck which a little boy named Adamson has found in a burial ground at Ireby, in Cumberland.

Hamburg Busy

Owing to the low foreign exchange value of German marks the port of Hamburg is busy, shipyards are hard at work, there is no unemployment, and quantities of goods are being exported.

Fall from a Cliff

With both arms broken and concussion of the brain, a schoolboy, Percy Downton, was hauled up to the top of the cliffs at Portland, Dorset. He had fallen over while he and two other boys were looking for birds' nests.

Good Rains in Canada

Heavy spring snow and rainfall has left the land in Western Canada in excellent shape for the crops. In some districts, however, there was so much moisture that the low lands were flooded, and seeding was badly delayed.

THE TRAIN THAT STOOD STILL

Astonishing Discovery on
a Railway

DANGER OF BAD TUNNELS

The danger of badly-ventilated tunnels has never been more disastrously illustrated than by the accident that happened in a tunnel between Bourg and Bellegarde in France.

A passenger train went into the tunnel, fortunately at a moderate speed. On the metals ahead of him the engine-driver saw the rear light of another train. He managed to pull up in time to prevent a serious collision; his train ran into the other gently and did no harm.

Then he and others jumped out to discover what the other train was doing there. It was a goods train, and it had come to a standstill because all the men running it had been suffocated by the foul gas of the tunnel. Of eight all were dead save one; he was just rescued in time.

As usual, it was discovered that the railway company "meant to ventilate the tunnel," but had put it off and put it off until these poor fellows lost their lives and brought the negligence into public notice.

TWO MEN WHO MADE GOOD

Fine Careers in the Post Office

Both the retiring Engineer-in-Chief to the General Post Office, Sir William Noble, and his successor, Major T. F. Purves, began as telegraph operators in their native country, Scotland, and rose by industry and competence to the highest position they could reach in the service.

Sir William Noble worked hard at mathematics and science in his spare time, while he was earning a small salary as a telegraphist, and his reward came by continuous promotion, until he had under him a staff of 25,000 men, women, boys, and girls, and was made responsible for an expenditure of about £15,000,000 a year.

Major Purves is generally admitted throughout the service to be the right man to take up this work. He climbed the ladder, rung by rung, and at every stage was found deserving of the command to go up higher. He is an inventor as well as an administrator, and did much for "Signals" during the war.

Neither the retiring chief nor his successor have ever known a single day's illness.

WILD HOUSE-BIRDS

How They Make Themselves
at Home

A reader in Queensland gives an account of the tameness of the Australian birds.

The birds round this place are very tame, and the quietest and cheekiest are the soldier-birds, or, as we call them, mickeys, or minohs.

They nest in the trees just near our house, and as soon as the young birds can fly the old ones bring them to us here, and then don't take any more notice of them. They trust us to feed them, or at least to have things they can feed on.

They come into the house just as if they owned it, and take anything they want—milk, jam, sugar, anything. They will eat out of your hand, and often you nearly step on them.

THE TRAFFIC MANAGERS

The schoolboys of a Massachusetts town take turns in acting as traffic officers at street corners surrounding their schools. Trained by the Department of Police, they stay on duty at the hours when the pupils are arriving and leaving, and accidents are decreasing.

WORLD'S BIGGEST CITY

RIVAL CLAIMS OF LONDON AND NEW YORK

21 Cities with Over a Million People

WHERE MANCHESTER BEATS LONDON

The latest statistics show that the largest city in the world, judged by population, is not London but New York.

According to recently published figures the population of New York, including Brooklyn, is 7,820,676; whereas Greater London has only 7,476,168 inhabitants.

It must be remembered, however, that adjoining Greater London are other large areas practically continuous with it, whose people are not included in the published figures of the population of London. Yet their streets are continuous with those of the great city, and if the population of these areas that are really part of London, though not officially joined to it, were included, London would easily beat New York, and maintain its proud position as the biggest city in the world.

Four other cities have over two million inhabitants.

Berlin	4,000,000	Chicago	2,701,705
Paris	2,863,741	Tokio	2,173,401

Fifteen other cities have over a million people each.

Budapest	Hamburg	Pekin
Buenos Aires	Hankow	Philadelphia
Calcutta	Mexico	Rio Janeiro
Constantinople	Moscow	Shanghai
Glasgow	Osaka	Vienna

With regard to British cities, though the record for the metropolis places London far ahead of all competitors, if we include the country within a radius of 75 miles from the city's centre, then Manchester beats London by a considerable amount and if within 100 miles Hull runs it very close. These are the figures for London, Manchester, and Hull within various radiuses.

Miles	London	Manchester	Hull
25	9,026,850	3,967,350	594,300
50	10,424,400	9,163,350	1,760,850
75	11,698,050	12,754,350	4,654,650
100	13,225,350	16,070,250	12,712,350

In the North, of course, large manufacturing centres with dense populations are very close to one another.

HESPEROPITHECUS

Was He an Ancestor of Mankind?

TOOTH SAID TO BELONG TO AN APE-MAN

Working among strata that belong to an early period of the world's history in Nebraska, U.S.A., an American geologist, Harold Cook, came upon a tooth.

He did not know what kind of a tooth it was—whether it had belonged to an animal or a human being. He sent it to the New York Museum of Natural History, and there Dr. H. F. Osborn, a leading authority on early man, declared it to be a tooth from a creature which was a direct ancestor of the human race.

This is not yet accepted as a final decision. An English authority, Dr. A. S. Woodward, of the British Museum, says he thinks it may be a bear's tooth. It is very unlikely, he says, that a man-like ape should be found among the fossils of North America.

Two of the chief experts on fossil teeth have, however, stated their conviction that the nearest resemblance of the tooth is to those of men. If Dr. Osborn is right we have here a fragment of the farthest-back ancestor of man who has yet been discovered. He is to be called Hesperopithecus because he is earlier than Pithecanthropus, the most primitive man hitherto known.

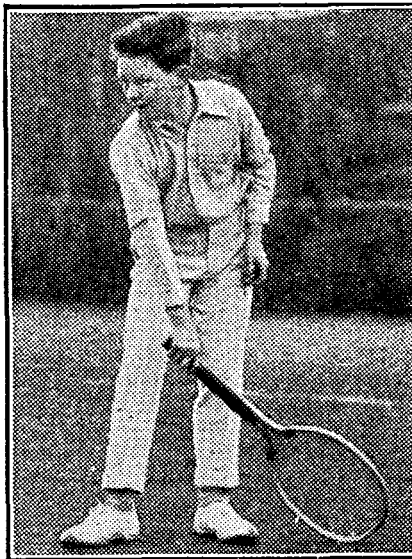
SUMMER GAMES ARE IN FULL SWING



A happy pair canoeing at the seaside



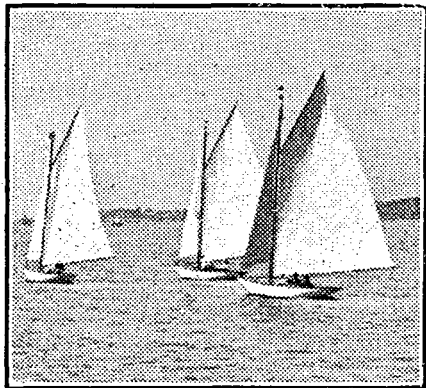
Croquet at Hurlingham



A back-hand shot at tennis



Public schoolboys enjoying a game of cricket



Yachts under sail



A quiet punt on the Thames



Cyclists off for a spin



Happy bathers at the seaside

Outdoor games are more popular than ever this year, and the fine weather has filled our parks and playing fields with happy people enjoying tennis and cricket. Bathing and boating, too, by river and sea, were never more popular. Cyclists find pleasant recreation in the country roads and lanes

WHY EVERYBODY LIKES OUR MONTHLY SOME THINGS IN THE NEW NUMBER

A Hurried Run Through Italy With the Editor

THE TWENTY COMMANDMENTS

All C.N. readers should see the July number of My Magazine. Never has this "wonderful publication," as The Times has called it, surpassed the number now on the bookstalls.

Its hundred pictures are accompanied by fascinating tales of science that are all true; by records of travel where everyone should go; by romances that make the past live before our eyes; by thoughts that will help us to travel through life along the paths of wisdom; and by bright and happy entertainment for all.

Who does not wish to go to the glorious cities of Central Italy by the railways that run along the Mediterranean coast? Well, through this number of My Magazine you can go, with Arthur Mee as your companion. He will tell you how he sees the steep, hill-side city of ancient Genoa, to which all the world has been looking; how he reads the wonderful story in stone of Pisa; what he admires most in Florence; and he will give his first impressions of Assisi and Siena, repeopling all these ancient cities as he passes with the men of old who left them for ever famous by their genius.

Whittington and His Cat

Do you wish to know what the modern magic of chemistry is doing, and is likely soon to do, to make the lives of all of us more pleasant? You can read of these wonders in this magazine.

We have all heard of Dick Whittington and his cat, and the journey to London that brought him good fortune, but do you know the real story of his romantic life? It is all told in this remarkable number. There you may learn how Dick did what probably no man ever did before or since—threw on the fire papers which, if he had kept them, guaranteed him a million of money.

If you wish to know the way to real happiness—and who does not, if he or she thinks at all?—read the Twenty Commandments that make a sure foundation for the road to true success and usefulness and peace of mind.

A Walk in the Country

If you go for a country walk or a walk along the seashore, there are more than twenty things that you might see, and wonder at, and not understand, all here explained and shown to be most curious and beautiful examples of workmanship fashioned by birds, or insects, or fishes, or plants, or other living creatures.

These are but a few of the enthralling contents of a magazine that has been commended by a Government Committee as excellent and desirable for all.

My Magazine offers its readers knowledge and true wisdom, in a spirit of brightness and helpfulness, and in the firm belief that a friendly world will be a happy and prosperous world. Let us read it and spread it wide, and help to make a world like that.

FOR CROSSING THE ATLANTIC

Eight Miles of Oil Flowing in a Ship

Nearly eight miles of piping have been used in fitting up the 52,000-ton ship Berengaria to burn oil instead of coal.

The mammoth ship has 46 boilers, and each boiler has been fitted with five oil burners. There are 32 oil tanks, many arranged in what were previously coal bunkers, and the ship can carry over 6000 tons of oil, nearly the whole of which she will use up in the trip across the Atlantic

HENRY FORD'S KETTLE

A WONDERING BOY'S EXPERIMENT

What Would Happen if the Steam Could not Escape?

EXTRAORDINARY CAREER

The friends of Mr. Ford are trying to run him as candidate for the Presidency of the United States. They are not likely ever to succeed, but it is one more tribute to the remarkable powers of this great plain-man.

Just now Mr. Ford is devoting his chief attention to the farm tractor. His first motor vehicle was a tractor made from an old wagon and a few odds and ends found on his father's farm. From that time to this he has had visions of the day when all the big work on farms would be done without horses, and he hopes before long to be turning out a million farm tractor a year.

From his earliest boyhood Henry Ford has been a dreamer with a vivid imagination, but he has also been a practical inquirer into the reasons for things, with a determination to find out those reasons by experiment and to transform dreams into realities.

Story of a Scar

Some amusing experiences of his boyhood have recently come to light, and one of these accounts for a scar on his face. It dates back to when he was ten years old, and is like a more daring version of James Watt's childhood.

Young Ford sat watching the kettle boil on his mother's fire, as young Watt used to do, and his mind was stirred by the steam pouring from the spout and escaping all round the lid. He wondered what would happen if this steam could not escape. So he tied down the lid, plugged up the spout with rags and paper, and watched for the result.

He had not to wait long, for the result came in a way the boy little expected. There was a mighty explosion, the kettle was blown to pieces, and a jagged fragment cut his face, and left the scar that is there today.

The Farmer's Complaint

The experience did not deter young Ford from further experiments. He took watches and clocks to pieces, not always with the owner's consent, and after examining their machinery he put them together again. Then he made a water-wheel, and in order to obtain a suitable head of water to turn it he built a dam across a brook.

So well did he do the work that the brook above the dam became a reservoir and overflowed its banks, flooding a farmer's land. The result was an angry complaint to the schoolmaster, who made Henry destroy his dam.

He has been experimenting ever since those early days in Detroit, and the result is the biggest motor industry in the world, and indeed one of the biggest industries of any kind. He turns out 4000 cars and tractors every day, or nearly three a minute. Count twenty, and Ford has made a car, count another twenty and another car is ready, and so it goes on every day.

One Man Employs 66,000 Workers

He employs 66,000 men in his many factories, has his own coal and iron mines, his blast furnaces and steel works, owns a complete railroad system, heating and lighting plants, fire brigade, telegraph and telephone services, a hospital, a picture palace where only decent pictures are shown, playing fields, schools, stores, and a newspaper.

And the beginning of the inquiring mind behind all this vast enterprise was the plugging of a kettle-spout to see what the imprisoned steam would do! It might easily have been the end rather than the beginning of a career. "The child is father of the man," says Wordsworth; and in Henry Ford we realise what the poet meant.

PETER AND BOGEY

A SECRET OUT

Good Examples of Animal Feats and Friendship

HOW THEY ESCAPED

By Our Natural Historian

Peter is a long-bodied, long-headed, short-legged terrier of very mixed ancestry, but true and loyal of heart and worth his weight in gold in the affections of the family of a C.N. reader, by whom he was bought for a pure-bred fox-terrier.

Next to his human friends, his great chum is Bogey, a mighty black Persian cat. Between these two there is a defensive alliance against all the world, and its first fruits have sorely puzzled the rest of the household.

Peter has claws like a young aardvark, and employs them to sink various little shafts and tunnels in the lawn. So the family, instead of dooming him to a kennel and chain, have fenced off a little section of the garden, with a nice swing gate and latch, and in that airy, commodious gaol Peter is sometimes confined for misdeeds committed.

Bogey Climbs a Tree

But Peter always gets out! Sometimes he is seen quietly mining on the lawn; sometimes he is found lying outside the gate, and a new hole in the turf shows where he has plied his favourite engineering activities.

The secret of the escapes is out at last. Bogey is the culprit. Bogey mounts the gate, clings to the top rail, stretches down a clever forepaw, and releases the latch. At the same time Peter, standing on his hind-legs, pushes the gate by thrusting his front paws against it. The gate opens, Bogey rides on it as Peter comes bounding out, and the two confederates go off to romp together in freedom until the time comes for Peter to begin mine-sinking in the turf again, and Bogey has to climb a tree to see what ails a grumbling blackbird.

Dog that Would Not be Tied Up

Peter and Bogey have taken the place of two other confederate pets, now dead of old age—Dandy, an imperious little Pom; and Flossy, a motherly, affectionate collie. One day, while paint in the house was wet and furniture out of place and Dandy much upset in consequence, his master, in order to keep him out of harm's way for a while, took him to the bottom of the garden and tied him to a tree. Very soon afterwards Dandy was in the house, with the broken string hanging from his collar. Surprised at this, his owner tied him up afresh, but with the same result.

Then a thicker cord was used, and again Dandy quickly bounced back to the house. The cord was once more made fast, and now a watch was set to see what was happening, for it was obvious that the Pom's small jaws could not be responsible for such a succession of quick escapes.

There was not long to wait. As soon as all was quiet Flossy, the collie, stole down the garden, seized the rope between her big, scissor-like grinding teeth, and calmly gnawed it through, so that for the fourth time Dandy was set at liberty.

In the Auction Rooms

The following prices have lately been paid in the auction rooms for objects of interest.

A portrait by Reynolds . . .	£8400
A painting by Van Dyke . . .	£6510
A portrait by Gainsborough . . .	£4200
A portrait by Romney . . .	£2730
Five Queen Anne armchairs . . .	£1417
A portrait by Frank Hals . . .	£1200
Suite of Louis XV furniture . . .	£735
A Louis XV. cabinet . . .	£714
Brussels 17th century tapestry . . .	£693
A pair of Louis XVI vases . . .	£525
24 letters by Dr. Johnson . . .	£300
A Louis XV writing table . . .	£231
A maple-wood drinking bowl . . .	£125
Two cottages at Mansfield . . .	£27
Autograph MS. of Swinburne . . .	£23

100 YEARS AGO

What Steamships Were Like Then

FIRST DAYS OF A TREMENDOUS CHANGE

What were the steamships like of a hundred years ago? Some romantic details of these early vessels have been given in a lecture by Engineer-Commander E. C. Smith.

The boilers of early ships were filled with salt water, and every third or fourth day the fires had to be put out, the boilers emptied, and the sea salt removed.

None of these early vessels dared to rely on steam alone for its safety, and special care had to be taken to see that the paddle wheels should not interfere with navigation when the vessels had their sails set. The earliest boilers had no means whereby they could be fed with hot water as the steam was used up, and the first method of feeding the boiler with hot water was to build a circular tank round the funnel!

LEARN TO SWIM

Boys Who Saw a Comrade Drown

What can be more distressing than to stand by and see a comrade drown?

That was the unhappy lot of three boys at Virginia Water who, because they were unable to swim, could give no help to a fourth boy when he got into a deep hole when bathing, and watched him sink after rising three times.

At the inquest it was suggested that all children should be taught to swim.

No opportunity of learning should be neglected. The chance does not yet come to every one, as it will some day, but many get chances and neglect them.

Swimming should be taught to every boy and girl as a matter of course. The number of lives lost through neglect in this direction is very large, and even larger the number of those who have to go through life saddened by the remembrance that when they saw a fellow-creature losing his life they were not able to give help.

SHOES FOR DOGS

Good Things in the Right Place

A reader of the C.N. in New South Wales, commenting on a remark about foolish people sometimes putting slippers on dogs, says that sometimes it is not foolish, but is necessary.

In some seasons the Australian plains are so covered with burrs that stick in the sheep-dogs' feet and make them lame, that little boots of leather have to be put on them as a protection. The dogs hate these incumbrances at first, but get used to them.

Our correspondent sends us a saddler's advertisement of "sheep-dog boots."

In the Polar regions, too, in certain states of the ice, sledge dogs have to be furnished with seal-skin boots, or the sharp ice splinters lame them. The difficulty in this case is to prevent the dogs from eating their boots.

A VERY ODD COMPANY

The Oil Hunters of Australia

A remarkable expedition is about to set out from Sydney, to search for oil in Central West Australia. The Australian Commonwealth Government has offered a reward of £50,000 for the discovery of oil in commercial quantities.

The expedition, which will be away several months, is being led by Mr. L. T. Jones, and he is taking with him a team of camels, a wireless apparatus, and probably an aeroplane.

This strange company will set out to explore a land 250 miles from the farthest borders of civilisation, and, while they may not reap the reward of a big oil discovery and the prize it would mean to them, a careful geological survey will at any rate be made of a hitherto unexplored part of the Australian continent.

HOW MANY WORKERS HAVE WE?

WONDERFUL FIGURES OF BRITAIN AND AMERICA

Nine British Breadwinners for Every Four Families

FIFTY MILLION EARNERS IN U.S.A.

By Our Economic Correspondent

One of the most remarkable things about our country, which few people realise, is that the number of working people has considerably increased in recent times. We are speaking here of persons working for salaries or wages.

We are still waiting for many of the facts of the census taken last year, but we know that the population of the United Kingdom, including Ireland, was as nearly as possible 47,300,000. Twenty years before, in 1901, it was only 41,500,000. That is a big increase, and it reminds us that we have continually to do more work and more oversea trade to earn the food and materials to sustain a rapidly-growing population.

Britain's Ten Million Families

The figures given mean that we have about ten million families in the country. How many workers are there to sustain these families?

Of course, a large proportion of our population consists of those too young, too old, or too feeble to work at all; and, of course, there are the mothers who cannot go out to work for wages, but without whom there would be no homes at all. It is therefore not a little surprising to learn that we have as many as about 22,500,000 men, women, and young people actually earning money for themselves or their families.

As there are about ten million families and about 22 million workers, we have, on the average, *nine bread winners for every four families in the country.*

That is a very important fact, and it explains why even in a time of bad trade there is less distress than there used to be years ago.

America's Huge Population

Now let us turn to that great country the United States. The last American census was taken in 1920, less than two years ago. It showed that the population of the United States had grown to the enormous figure of 105,700,000. At present America has nearly two and a half times as many people as we have.

This is one of the most striking things the world has to show—the peopling of one of the richest territories in the world by a great population, mainly white, derived from every nation in the world.

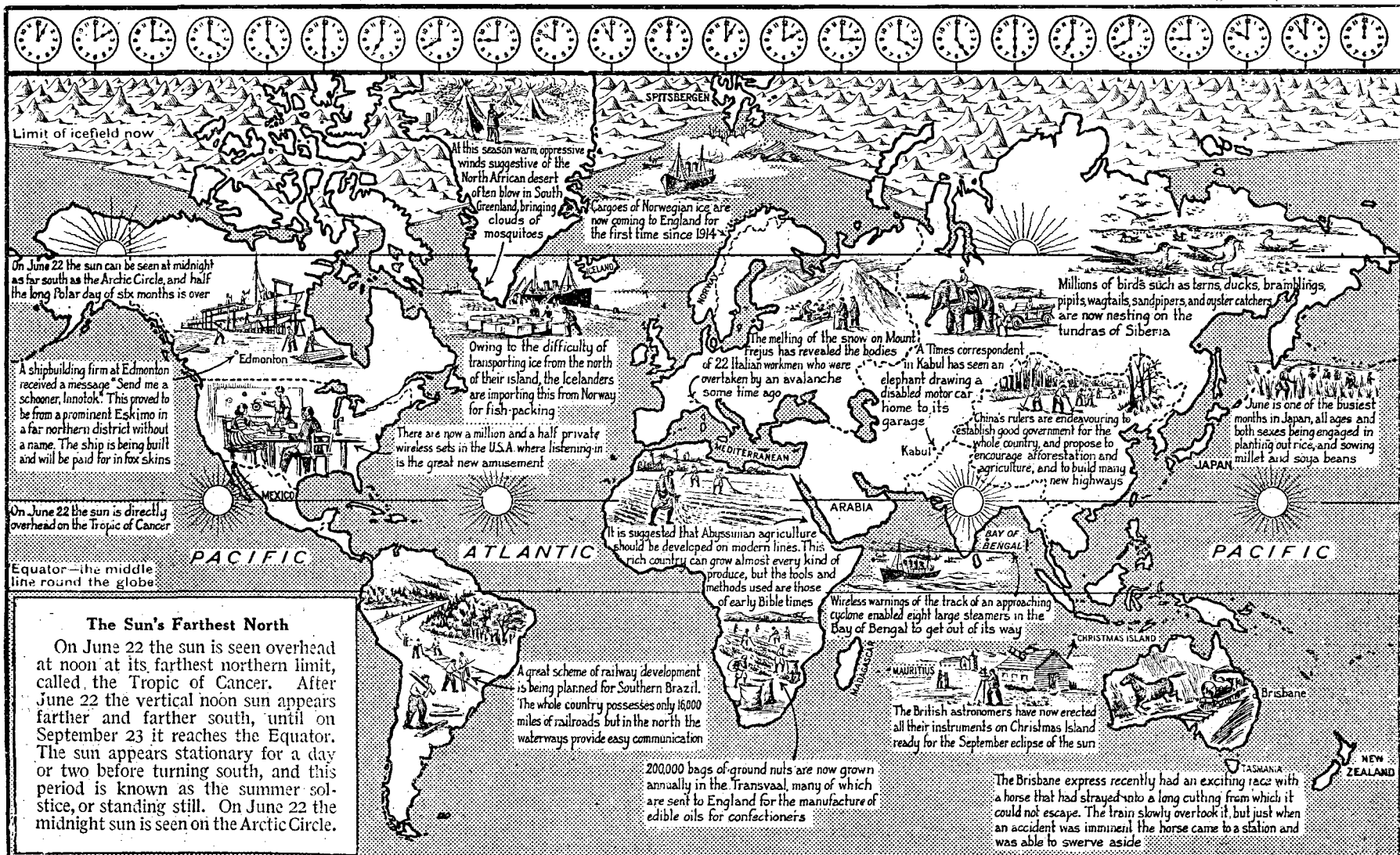
The American census showed that there were, in 1920, over *fifty million* men, women, and young people earning money. As the number of American families is about 23 millions, this means that the number of breadwinners per family in America is pretty much the same as it is here.

Women Earning Money

In America, as in Britain, the number of women earning money has greatly increased of late years. In the old days it was very rarely that a woman worked outside her own home. Now, on both sides of the Atlantic, it is a common thing for girls to begin earning money as soon as they leave school—in offices, warehouses, mills, factories, steam-laundries, restaurants, picture-houses, theatres, shops, and so on.

One of the many consequences of the increase in the number of wage-earners has been the improvement in dress. Fifty years ago a girl could only be clothed out of the earnings of her parents, and she had to be content to be nicely dressed on Sundays only. Nowadays, because of the increase in the number of independent earners, hundreds of thousands of young people are able to buy their own clothes, and so we get the striking change that many people now are better dressed every day than most people were on Sundays in the times gone by.

PICTURE-NEWS AND TIME MAP SHOWING THE SUN AT ITS FARTHEST NORTH



IDEA IN A POORHOUSE A Pauper With Brains

Whether there is anything of real value in the idea of printing newspapers by electric current from a distance remains to be seen; but no man capable of conceiving such an invention and lecturing upon it ought to be living as a pauper in a poor-house.

In Budapest there are a great many of the new poor reduced to the utmost straits. A Hungarian engineer named Szabo is one of them.

He is living in the workhouse because he has no means of subsistence. Engineers and inventors cannot find employment. He had to explain his latest invention, therefore, to a number of scientific people in the workhouse itself.

His scheme is to use either ordinary electric current or wireless to transmit messages already set up in type and to have them reproduced by the receiver.

It sounds unlikely, but all the inventions that have made the last hundred years the most marvellous in history have sounded unlikely at first.

THE EGG COLLECTOR Cruelty and Waste

A Bristol reader sends this timely protest against the cruelty and waste of the thoughtless collectors of birds' eggs.

With the brightness and happiness of summer comes the wanton stripping of tens of thousands of nests in a country that prides itself on its love of birds.

Think of the busy days of the nest-makers: their anxious watching; the patience of the sitting bird; the industry of her mate; and then for the fruits of their labour to be destroyed by—man!

And such cruelty is wanton, for it is entirely needless, as, with a little care, the naturalist and nature lover can always abstract a single egg—if he must do so—without damage to the birds' family life.

Stern laws are needed to repress the lust of destruction which is the cause of most egg-collecting!

MAJESTIC INDEED The Proud Ships of the White Star Line

We are all glad to know that the story of the White Star liner Majestic going aground in New York Harbour was based on a misconception, and that the vessel was never aground at all.

The explanation was that, a passenger having jumped overboard, Commodore Hayes, with a skill and seamanship that drew forth the praise of all who saw the incident, brought his huge vessel to a standstill in an unsuccessful attempt to recover the passenger.

It is a cause of great satisfaction that this proud ship, the proudest vessel that has ever sailed the seas, should have made its maiden voyage to and from America without the slightest hazard. It is one more laurel in the crown of the famous White Star line, whose ocean liners take their place among the most majestic creations of the modern world.

LET US MAKE ISLANDS Fuel Stations in the Atlantic

The chief difficulty in the way of a regular service across the Atlantic Ocean by very large passenger aeroplanes is the weight of the fuel they would have to carry if they took a supply for the whole journey.

To meet this difficulty it is seriously proposed to make artificial islands where the fuel tanks could be refilled. The islands would be made of hulks so arranged that they could be swung head to wind, anchored securely, and protected from rough seas by a ring of huge balks of timber, also chained to the bottom, which would break the force of the waves.

There would be a powerful light on a steel tower to guide the aeroplanes, which would descend on the water, being fitted with floats instead of runners.

NEWS WHILE WE MOVE Wireless on the Railway MAKING TRAVEL PLEASANTER

While the passengers on the fast American trains which run daily between New York and Ithaca sit in their comfortable arm-chairs they can hear the news by wireless telephone in addition to reading it in their newspapers.

To each chair is fixed a receiver that can be put over the ears. If the passenger prefers to keep his head free, he can sit in the buffet car and let the loud-speaking telephone tell him all that is happening while he goes on his way.

The wires are strung along the roof of the train and so far have worked very well, except at certain points where hostile influences come into play.

For example, in the sheds at the New York terminus the steel used in their construction draws away the waves which bear the messages and prevents them from reaching the trains.

CAT TRAVELLER Finding its Way Through a City

A reader who lives in the country, six miles out of Sheffield, adds to the records of cats finding their way home.

Owing to a puppy, with which we feared the cat might not agree, being brought into the house, we sent the cat—a three-year-old Tom—to Sheffield to a relative of ours.

The journey of fully six miles was made on Sunday by train. At first the cat seemed to settle down; but on Tuesday it was missed; and on Thursday night it returned to us.

The most remarkable fact about this journey is that the cat would have to come through the busiest part of Sheffield. We have now decided to keep it.

Pronunciations in This Paper

Buenos Aires . . .	Bway-nohs I-rayss
Mazzini . . .	Maht-se-nee
Pithecanthropus . . .	Pith-e-kan-thro-pus
Samoa . . .	Sah-mo-ah
Smethwick . . .	Smeth-ik
Solstice . . .	Sol-stis
Tokio . . .	To-ke-o

NO MORE DEAD-HEATS? New Way of Timing a Race KINEMA TO THE RESCUE

The kinema-camera is to be put to a new use; it is to time exactly the runners in a race.

When two competitors come in very close together it is extremely difficult for the umpire to say which was first, and often two men are so near that the result is declared a dead-heat. In all such cases probably one of the men is a fraction in front of the other, but the eye is unable to note such minute differences.

Now a clock is to be erected at the winning-post, and as the winners come in they will be photographed with a kinema-camera, which will time their arrival to the hundredth part of a second. If the winner breaks the tape only one-eighth of an inch in front of his nearest competitor the camera will note the fact.

The camera will be focussed simultaneously on the clock at the winning-post and on a mirror reflecting the start of the race. Both clock and camera will be set working before the starter fires his pistol, and the flash of the pistol will be reflected in the mirror and recorded on the film with the time of the clock to a hundredth of a second.

This time can then be subtracted from the time of the finish, and the exact time of the race for each man arrived at.

There will now be very few dead-heats in running matches.

GIANT FROGS Swallowing a Crab

Rana Goliath is the name given to a giant frog that was shown the other day at the Royal Society. This huge frog has a body 12 inches long, without measuring the legs, and is very fond of rats as a food.

Another huge frog, which comes from the Solomon Islands and swallows crabs whole, has been named Rana Guppyi.

CHILDREN'S NEWSPAPER

JUNE 17 1922

Be of Good Courage

A FAVOURITE question with men in talking with boys is: "What are you going to be?"

Just now this question is rather an awkward one. It looks as if it might be difficult for a boy to be anything at all. In fact, a correspondence has been going on in one of the papers under the depressing headline, "What To Do With Our Sons."

But if our parents are anxious about us, we hope youth is keeping its faith; for a strong faith in the future is one of the best weapons in dealing with adversaries so difficult and different as arithmetic and swift bowling.

The boy who tells himself that he will master the rule of three and collar the bowling of a rival school is half-way to the prize table and the top of the averages. The boy who is confident that he will be a doctor, a sea captain, a Lord Chancellor, a poet, an inventor, a merchant, or a great discoverer, is treading the main road to success.

And there is no need for anxiety on the part of youth. The grown-up sees only today; the boy dreams of tomorrow. Let us admit that the state of things is nearly as bad as it can be—unemployment, vanishing or diminishing professions, a world of chaos, nations swerving on the abyss of bankruptcy. But there is another day tomorrow.

Tomorrow the sun may rise on a cloudless world come to its senses. Men may be living by love and sympathy, instead of hate and murder. Peace may be seen as a blessing and War as a curse. Tomorrow the wheels of commerce may be turning again, and Capital crying out to Youth for its creative Labour.

In any case, there is one thing that cannot be stopped, and that is invention. The idea of broadcasting wireless stations is a sign of what may come to the world in the way of new professions and new trades. If the news of the world can be flung through the ether into tiny hamlets and villages which seem to cling to the map only by the skin of their teeth, why should not broadcasting dynamos pour into every cottage a supply of light and power which will revolutionise domestic life and open up boundless possibilities for the country?

Let youth keep its faith. The boy who says "Something will turn up" is more likely to succeed than the boy who looks dismally into the future for a black coat and a pension. But the boy who is quite certain to succeed is the boy who says, "I will turn up something."

He knows that the world is never old, that every tomorrow is a glorious adventure, and that life will never rest until it has accomplished the purposes of God.



THE EDITOR'S TABLE

Fleetway House, Farringdon Street, London

above the hidden waters of the ancient River Fleet, the cradle of the Journalism of the world



Stop It

THE war for the last bit of the Spanish Empire still goes on, and we read that Spain is straining every nerve to keep a bit of Morocco as the only shadow she has left of her once proud empire.

Morocco, we read, has become a great wound in Spain's side through which the best of her blood and treasure is flowing out; and how to stop this flow has become the master problem of Spain.

Everywhere this militarism is the same, draining nations of their blood and treasure. For Spain, as for Europe, there is only one way out, and all the world knows it. We have to stop this military nonsense everywhere.

Up to Us

Is there any sadder sight than a bird's nest torn from a hedge, or plants pulled up by their roots and scattered about to die? Is there anything more unpleasant than a little stream half full of broken crockery and other rubbish?

Can anything spoil a charming country scene more detestably than a heap of tins thrown carelessly away near a cottage, or paper littered about by careless picnickers?

All these and other evils can be stopped by children, and a great effort is going to be made to persuade children to stop them. In numbers of villages now there are women's institutes; and all the mothers belonging to them are to be asked to tell their girls and boys that it is up to them to preserve the beauties of the country and to protect the wild life which makes England the most beautiful land on earth.

Here is a campaign in which everyone can take part. Children are quite wise enough to see that what they are asked to do is highly desirable if it is put to them in the right way. We put it now to the millions of them who read the C.N.

Children of the C.N., it is up to us to keep our beautiful country the beautiful place God made it.

The Everlasting Waste

WHEN things are wrong they should be put right. Two things seem to be wrong according to an official report we have been looking at. It concerns our milk supply.

1. The milk supply of London comes from 38 different counties, as far distant as Cornwall and Cumberland.

2. Half a million gallons of milk go sour every year on our railways, because no English railway company has refrigerator vans for milk.

This waste of food and transport, two of the most vital needs of life, is surely a thing that should be stopped. Perhaps the Ministry of Health will see to it.

To Keep Us in Humility

OUR Royal Astronomical Society is a hundred years old, but a witty astronomer reminds us that the news of its founding can only have reached about ten thousand stars, and a hundred million or so must still be in ignorance of the society's existence.

It is enough to make the proud Victorian Era very humble to think that a thousand million worlds have not yet heard of it.

Tip-Cat

HOLIDAYS are said to be beyond the middle classes nowadays. Consequently they are looking forward to them.

A FIRE-ESCAPE: Vesuvius.

It is now suggested that children should learn vulgar fractions by sawing up boards.



Illustrating their lessons, so to speak, with woodcuts.

AN economist declares he has no friends. Economical even in that.

A REPORTER mentions, rather late, that the road is up in Ludgate Hill. But, of course, when you go the other way it is down.

PAPER hats are the latest craze. Rather a sensational headline.

SIR JAMES BARRIE finds even hard work is good fun. Yet they say a Scotsman can't see a joke.

MANY a promising singer, it seems, lives in an attic. Trying to reach his top note.

A PROFESSOR is afraid girls eat too little. Simply because the smallest of them gets hungry.

Law-Maker and Law-Breaker

A MEMBER of the House of Commons has been convicted for the thirteenth time for driving a motor-car dangerously. We hope he will not be convicted again. "I ought to know the law," he told the constable. "I helped to make it." We think he might help to keep it.

Breakfast

IT is said that Queen Elizabeth used to breakfast off a quart of beer. A notorious character who has just been sent to penal servitude is said to have breakfasted off two kippers and a bottle of champagne.

Personally we prefer a roll and coffee, with a look at the roses; but it is a funny world.

The Gloomy Man Takes a Walk

A MAN lived a lonely life in a cottage on a moor. He did not believe in the goodness of mankind. He believed that everybody was working for money. And so he lived alone.

But one morning in June he woke up with a feeling of delight. Around his cottage the plants and flowers were spreading their leaves in the sun, and the birds were singing with a new joy. The magic of spring was about. It touched the heart of the lonely man and moved him to go among his fellows.

He saw a farm labourer working in the fields.

"What are you working for?" said the man. "To earn a few shillings, I suppose?"

"No," said the labourer; "I am making the earth grow corn for men to live on."

He came to an old shepherd tending his sheep.

"What," said he, "makes you sit out here in the wind and rain and cold, looking after this flock? A little money paid every week?"

"Thousands of people have been warmly clothed from the wool of my sheep," said the shepherd.

He got into a train.

"You don't drive this train for pleasure, do you?" he said to the engine-driver. "I suppose you work for money?"

"I work more for others than for myself," said the driver. "I join the cities. I link country with country. I bring the nations together."

The man came to a crossing outside the station.

"Trying to pick up a few coppers?" he asked the sweeper.

"I am keeping the ways of the city clean," the sweeper said.

He saw a clerk.

"Why do you drudge over a ledger for a miserable wage?" he asked.

"I am making war impossible," said the clerk. "I am uniting mankind in peaceful commerce. I am teaching men that friendship is best."

He met an editor.

"Why do you print all this stuff?" he said. "Because you are paid?"

"No; I am making truth known to all," said the editor. "I am making a record of today to guide men tomorrow."

The man spoke to a schoolmaster.

"Making money out of the children, I suppose?" he said.

"I am teaching the children how to be happy and good," said the teacher. The man met an artist.

"Working for profit?" he asked.

"No," said the artist. "I create beautiful things."

A new feeling stirred within the gloomy man. He felt that all were working for the good of all. He sat down and closed his eyes, and saw the Golden Age; and when he awoke, instead of going back to his cottage on the moor, he stayed in town, and joyfully lived among his fellow men.

THE BLACK CLOUD MONSTROUS BURDEN OF OUR TOWNS

**Tons of Smoke that We are
Always Breathing**

WHEN THE HOME FIRES BURN

By a Scientific Correspondent

If you live in a town like London, or, worse still, if you live in one like Rochdale, you will take into your lungs a great many things you do not want besides the clean air that you do want—tar and sooty ash, sulphates and chlorine and ammonia, for example.

One of the consequences is that while the lungs of people who live in the country are, on the whole, pink—so that, if this were a joking matter, we should say they were in the pink of condition—the town-dwellers' lungs are black.

Exactly how much coal-dust there is in the lungs of the Londoner or the dweller in Rochdale or Birmingham or Newcastle varies from time to time, especially from summer to winter, so that we are not prepared to state its weight or quantity. But the report just published by the Meteorological Office of the committee of scientific people who are inquiring about the pollution of the atmosphere by coal smoke tells us how much falls every day on the ground.

Showers of Soot

For convenience they reckon by months, and so tell us that nearly 10 tons of smoky dust fall on a square mile in Rochdale every month, over eight tons in Birmingham, over six tons in Newcastle, and, on an average, over the four-mile radius of inner London between three and four tons a square mile every month.

There is a good deal more always falling in Southwark than on Wandsworth Common or Victoria Park.

All this dirt, of course, comes out of the chimneys, from which the smoke ascends, is carried away for a distance—which depends on the strength of the wind—and then falls down again in particles of soot, ash, sulphates, and so on.

What a Foggy Day Means

On a really foggy day in London or Glasgow or Manchester the air is still, so the particles go straight up and come straight down again.

The scientific people on the committee have something to say about that. When a fog is brooding over London's 120 square miles it holds above the streets and squares and parks some 190 tons of sooty particles.

All that from smoke! But it is easily shown to be calculable. There are 17,000,000 tons of coal used in London each year—10,000,000 in factories and workshops, 7,000,000 in domestic grates.

The burning of this fuel throws up into the air 95,000 tons of smoke every year, and though the domestic grates use less coal they throw up more smoke proportionally, and are responsible for about 70,000 tons of it. When the kitchen fires of London are working full blast in the winter, and other domestic fires are lit as well for warmth, they are, taking all together, throwing up 35 tons of smoke every hour. The factories are adding another nine.

When London's Air is Purest

It may be added that the kitchen fire's crimes do not end here, for kitchen coal contains about 30 per cent. of that tar which makes the grime left by a London fog so black and tenacious.

These scientific people, who have for several years now been watching what coal smoke does in a number of places, can tell you many more interesting things about it.

The air of a town like London is purest between midnight and early morning—let us say, till 6 a.m. or 7 a.m. Then, on weekdays after six o'clock, and on

LONG LIFE TO THE LITTLE PEOPLE

MANY travellers in Central Africa have got glimpses of the forest dwarfs.

We are always glad to get another peep at the little people, and we get that in Dr. Vander Bergh's recently-published, fascinating book called *On the Trail of the Pigmies*.

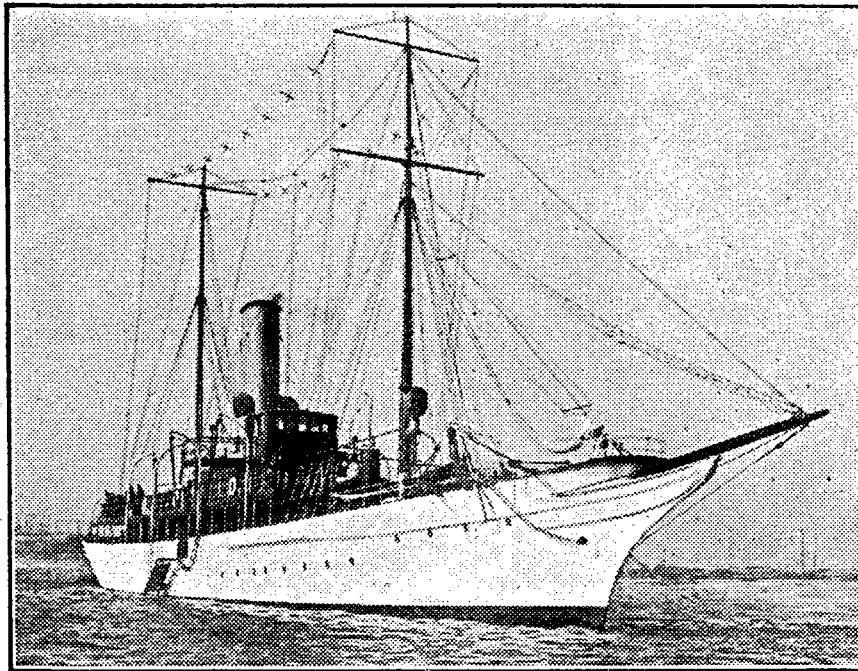
Of a truth he obtained only the usual glimpse, for the pigmies are always on the move and they are as elusive as the creeping things of the woods. They are the smallest human beings, the women averaging four feet, the men a little more. They are children of the forest, finding food, shelter, and happiness there.

They make short-lived huts of branches and leaves, but they are as happy without cover or shelter as under it. They hunt with bows and arrows that look like toys to us, but from the vantage ground of the trees they pepper the elephant till he falls.

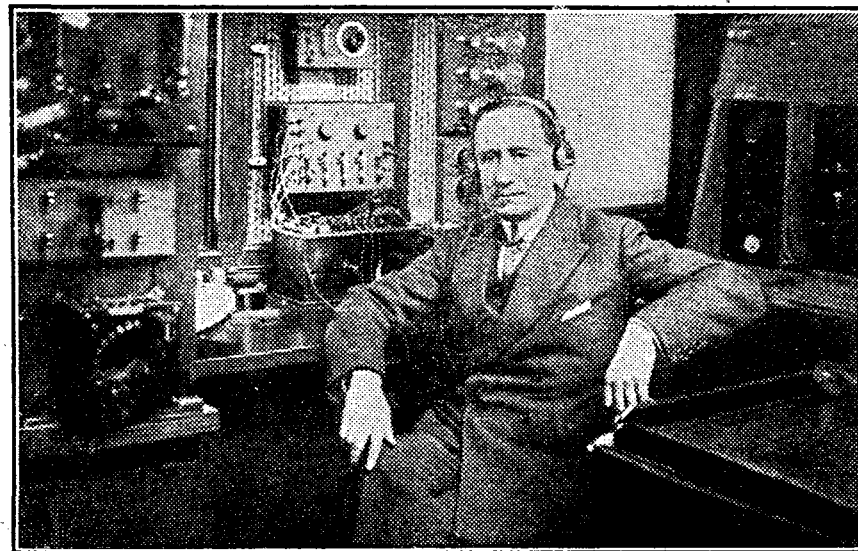
They have very good digestions, and they are healthy, wholesome, and honest. They believe in one wife and in one God. The only black marks against them are that they have no ambitions and that they have a rooted objection to work.

Surely there is plenty of room for them in the world. Long life to the pigmies!

MARCONI GOES OUT TO LISTEN-IN



The steam yacht Elettra with its wireless antennae between the masts



Marconi listening during an experiment in the wireless cabin of the Elettra

Marconi, the famous inventor who made wireless possible, has just sailed from Southampton for a series of new experiments in the Atlantic, which, if successful, will do much to minimise collisions at sea. He is ever seeking new worlds to conquer

Continued from the previous column

Sundays after seven, it grows rapidly dirtier and smokier till it is at its worst about ten o'clock on weekdays and eleven o'clock on Sundays. That is London's breakfast smoke.

On Sundays there is the mid-day Sunday dinner smoke; but on other days the dirt and smoke gradually diminish in the air after midday, and then have another rise, though not so great as the morning one, about tea-time at four o'clock or five o'clock.

That lasts till nearly eight o'clock in the evening, when most people's evening meals have been cooked or put away; and after eight there is a rapid drop till ten o'clock or midnight. It will be seen that the main source of supply of smoke-dirt arises when the many domestic fires are getting into full blast. The committee made a special inquiry

about Rochdale, the smokiest town in Great Britain. It is a town that nestles at the foot of the Pennine Chain of hills, which protects it from the east winds. But it lies open to the south and west winds which blow most of the year, and have passed over six other smoky towns—Oldham, Bury, Heywood, Middleton, Castleton, and Royton—before they reach Rochdale, bringing their unwelcome gifts of coal dirt with them.

So that in about five months six tons a square mile seem to be brought in by the west winds, and only about three or four tons is blown out by east winds. That leaves an unfavourable balance of between two and three tons a square mile on murky Rochdale.

But that is a trifle by the side of the dirt deposit that Rochdale produces out of its own grates and furnaces, for this, as we have seen, is 10 tons a month.

THIRD TIME LUCKY STARTING A GREAT CAREER

**If at First You Don't Succeed,
Try, Try, Try Again**

REFUSING TO TAKE NO FOR AN ANSWER

"Try, try, try again," is the motto of all who win success in any worthy aim.

Never to take No for an answer when his whole future seems to depend upon a Yes is the rule of every man who means to mould circumstances to his will instead of letting them mould him.

In America there died the other day a man who had made himself conspicuous in many ways. He had amassed a fortune as a banker and he had devoted himself to work for the world, notably as President of the American Red Cross. The foundation of H. P. Davison's success was perseverance. He once told how he made his start in New York.

The Man for the Job

He was a clerk in a bank at a town some distance from that city. One day he learned that a new bank was to be opened there. He was lucky enough to get an introduction to the vice-president and took train the same afternoon.

The vice-president received him kindly, but said they must have in the new institution men who were familiar with New York and its banking arrangements. Young Davison went home after agreeing with the vice-president that he was not the man for the job.

But that night and the next day he grew more and more doubtful. Had he not agreed with the vice-president just out of politeness and because he felt grateful for kindness? He felt that he might be the man for the job, after all.

He took the train a second time, and made another application.

A Fine Promise

The vice-president declined to discuss the matter. He shook hands hastily and left the applicant standing outside the office door.

But by this time Davison had become certain that here was the chance of his life. He would not give it up. He had tried and tried. He would try again.

So back he went to New York next afternoon when his day's work was done, and arrived too late to catch the man he had come to see; he had gone home. Davison went after him, waited a long time in his library, and was received with a roar of laughter.

He smiled too, but he argued seriously. He promised that he would make the bank proud of him. He said he was forced to speak for himself because he had no one to speak for him. He did not want the bank to miss him!

A Lunatic at Large

The vice-president was impressed by his persistence; Davidson went away with the job promised to him.

Before long the opportunity came to show what he was worth. A lunatic entered the bank with a revolver in one hand and a cheque for a large amount made out to "The Almighty" in the other hand.

Davison took the cheque and began to count out small money, calling out in a loud voice: "Five dollars for the Almighty, ten dollars for the Almighty, fifteen dollars for the Almighty," and so on for some time.

This attracted the attention of the other clerks, and the man was seized from behind and handed over to the police. An incident which might have caused a great deal of trouble, perhaps loss of life, was brought to a quiet, harmless end by coolness and pluck.

THE RACE THAT WILL NOT DIE GOOD NEWS FROM THE PACIFIC

Maori Population Saving Itself from Extinction

AN ENCOURAGING CENSUS

One of the questions that ought to interest deeply every thoughtful citizen of the British Empire is the welfare of the coloured races that live in peace under the British flag.

The best of all tests of the European peoples as they spread over the world is that, by their civilisation, they preserve the lives and improve the character of the populations that held the world's outlying lands before white men arrived.

At first the coming of Europeans almost inevitably causes a decrease in the native races. The introduction of new diseases has that effect, and sometimes leads almost, or even quite, to extermination.

A recent census of the islands under British rule in the Pacific Ocean happily gives encouraging results.

These welcome effects are seen particularly in the case of that fine Pacific type of manhood the Maori race, of the most favoured land of the great Pacific Ocean—New Zealand.

Increasing Prosperity

For some time there was a fear that the Maori population would decline toward extinction; but, in spite of the great devastation caused by epidemic influenza in recent years, the Maori race shows clear signs that it is increasing in numbers as well as in prosperity and civilisation.

A third of a century ago the census showed that the Maori population of the island had decreased to 43,595. That was in 1878. Twenty years ago the population was 43,143. But the census taken last year disclosed an increase of over 22 per cent., for the Maoris numbered 52,751. An increase of nearly 3,000 is recorded during the last five years alone, in spite of losses by war and through the influenza; and it must be remembered that the Maoris took their full share in the defence of the Empire during the Great War.

Welfare of Native Races

With the exception of Western Samoa, where the influenza epidemic caused a loss of nearly 8,000 and where there has been a decrease of about 2,000 in the native races during the last four years, the rest of the Pacific Islands now associated with New Zealand have increased in population, though the rate is not so well marked as in New Zealand.

To those who believe that the best of all justifications of the rule of the white man is the happiness and welfare of our coloured brethren these facts will be most welcome. They show that the native races of the great South Sea have a vitality and a capacity that will establish them firmly in the future, with a distinct place of their own, in the permanent family of mankind; and the C.N. has great pleasure in circulating this good news.

A FIELD ADVENTURE

Girl and a Badger

Nellie Tipping, a thirteen-year-old girl, had an exciting adventure while rambling through the fields near her home at Cookhill, Warwickshire. She stumbled on a badger which was sleeping under a hedge, and, on waking, the animal began to attack her fiercely.

Nellie seized a stick, and not only warded off its attacks, but eventually killed the badger and dragged it home. It was three feet long and weighed 21 pounds.

SEEING YELLOW The Eyes of an Insect WHITE FLIES AND THE YELLOW SCREEN

What can an insect see? It is a question that has no certain answer, though more than one book has been written about the senses of insects.

A great number of zoologists, too, have steadily asserted that the colours of butterflies' wings are what they are because, by being like the leaves or bark of trees, they deceive the eyes of their enemies.

A colour which is common among some forms of insects is yellow. The wasps are banded with it, and some entomologists suggest that the enemies of insects will avoid yellow because it has associations with insects that sting.

Whether all this is sound teaching or not, the colour of yellow plays a large part in the insect world, and attempts have been made to find out its significance among the insects themselves.

In a recent issue of the Bulletin of Entomological Research, Mr. L. Lloyd

G.P.O.

Letters—Home

Up to 1 ounce 1½d.
Not over 3 ounces 2d.
Every ounce over ½d.

Letters—Empire and U.S.A.

For every ounce or part of an ounce 1½d.

Letters—Other Places Abroad

Up to 1 ounce 3d.
Every ounce over 1½d.

Postcards

Home 1d.
With 5 words of formal greeting . . . ½d.
To places abroad 1½d.

Parcels—Home

Up to 2 pounds 9d.
Every 3 pounds over 3d.
Maximum weight allowed . 11 pounds

Telegrams—Home

12 words, 1s. Each word over, 1d.

Newspapers—Home

Up to 6 ounces 1d.
Every 6 ounces over ½d.
Maximum weight allowed . 2 pounds

Newspapers and Magazines—Canada

2 ounces, ½d.; up to 6 ounces, 1d.;
1½ lb., 1½d. Every extra ½ lb., ½d.
Maximum weight, 5 pounds

Other Printed Papers—Home

Up to 1 ounce, ½d. Up to 2 ounces, 1d.
Every 2 ounces over ½d.
Maximum weight 2 pounds

All Printed Papers—Abroad

Every 2 ounces 1d.
Commercial papers up to 6 ounces 3d.

Air Mail

Paris and Brussels . 2d. an ounce extra
Amsterdam . . . 3d. an ounce extra

has described some tests he made of the attractiveness of colours to insects.

He finds that the greenhouse white fly is powerfully attracted by yellow. When a plant is infested with the white fly the thing to do is to take a yellow screen coated with something sticky and transparent, and shake the plant near it. Thousands upon thousands of the flies leave the plant for the screen.

This is one of the clearest examples yet made known of a particular colour possessing a strong attraction for an insect. In fact, the seeing faculties of insects are those of which least is known, though some naturalists have supposed that these faculties have been so developed in some of the enemies of insects that they can detect differences of colour which we cannot perceive.

We do know, at any rate, that insects, in common with other animals, have senses which are much more delicate than those of a human being. The harlequin fly, which swarms about suburban gardens in the late summer, has hearing so acute that it can detect the notes set up by the beating of one female's wings.

WILL WIRELESS DRIVE THE PLOUGH? A Possibility of the Future CAR CONTROLLED FROM A DISTANCE

Some months ago the story was told in the C.N. of a motor-car that ran through the streets of Dayton, Ohio, without visible means of control. The car was controlled by wireless operated from another car following at a distance.

Another American inventor, Mr. Edward F. Glavin of New York, has now succeeded in perfecting a little car which he calls the wireless hound, and the movements of which he can control entirely by wireless.

The wireless hound, which has a single wheel in front for steering, is propelled by an electric motor and carries an aerial and a wireless set to which is connected a drum having several brass strips fixed to it.

Messages are sent out from the control station and are picked up by the car's receiving set, which in turn causes the drum to rotate so that certain brass strips touch a required part of the apparatus and complete a circuit. Different signals cause the drum to rotate more or less, as required, and the brass strips are so arranged that one particular combination of signals starts the motor, another steers the machine to right or left, and so on.

It is necessary to have the vehicle in sight all the time from the control station, so that the wireless car is not likely to be of much use for road work. But it is easy to imagine a man sitting up in a control tower operating ploughs and other farming implements over a wide stretch of country by the touch of a lever.

NEWS OF OLD EGYPT What the Spade is Bringing to Light

AN IMMENSE THEATRE

The unwearying work of the excavators in Egypt enables us, year by year, to know more about the way the people of that country lived five thousand years ago.

Professor Flinders Petrie has come back once more with news of valuable finds, chiefly at Abydos, where the early kings of Egypt had their palaces, and where their tombs are now being unearthed.

With them their chief courtiers and servants were buried, in order to provide them with company, so the official explanation went, but really to leave their successors free from the advice and interference of those who were accustomed to influence royalty.

Small figures in ivory of lions and hares were used evidently for some game, perhaps a kind of fox and geese. Ivory boards for playing the game on have also been found, and balls flattened on one side.

Remains of a theatre, larger than any known to us today, show that 8,000 people could watch spectacles on a stage 400 feet wide and 200 feet in depth, the seats being arranged on a slope so that all got a good view. That is more than can be said for some modern theatres.

MACHINES v. MEN

Ingenious Device for Sorting Letters

Every day some busy brain hits upon a new method of making machinery serve us.

Operations which a few years ago would have been considered impossible except by hand are now performed by ingenious mechanism. Lately, we described a machine for stamping letters; now the Post Office is being urged to adopt one which is said to be capable of sorting the contents of mail-bags more quickly and carefully than human sorters can do it.

THE WEEK IN HISTORY INIGO JONES AND HIS PALACES

Famous Career that Began in a Carpenter's Shop BUILDER OF COUNTRY HOUSES

June 18. Battle of Waterloo 1815
19. Uganda declared a British protectorate . 1894
20. William IV died at Windsor 1837
21. Inigo Jones died in London 1652
22. Mazzini born at Genoa 1805
23. Empress Josephine born at Martinique . 1763
24. Newfoundland discovered by Cabot . . 1497

Inigo Jones, who died on June 21, 1652, was the English architect who had the leading position in the reigns of James I and Charles I, but now is remembered chiefly as a name often mentioned in the records of his period.

He was born in London in 1573, his father being a poor clothworker. The boy was apprenticed to a joiner, as we know from the jeers of his enemies when he became famous; but his interest was in drawing, particularly designing, and he attempted some landscape painting.

He attracted the attention and patronage of two noblemen, first the Earl of Pembroke, and later the Earl of Arundel, and both helped him to fulfil his ambition.

Pembroke sent him to travel in Italy, and there he devoted himself to the study of architecture, taking as his master the Italian architect Palladio, who had died when Inigo was about seven years old, and left a book on architecture which later was published in English by his English admirer.

Designing Masques and Pageants

The early life of Inigo Jones is not fully known. He seems to have gained popularity in Italy by his liking for Italian architecture founded on the classical style, and to have passed from there into Denmark, where, according to some accounts, he built the palaces of the Danish kings in Copenhagen.

At the age of thirty he reappeared in England, and was at once given official employment by the king as surveyor of works to the Prince of Wales, and later as surveyor-general of works and buildings, first for James I, and then for Charles I.

He came prominently into public notice by his designs for the many masques and pageants that were a feature of the court life of the period. He was stage-manager of that form of entertainment for 35 years, and was associated in the work with the leading dramatists who were popular after the death of Shakespeare.

Particularly his name is linked with that of Ben Jonson, the chief writer of the masques—the degenerated successors of the great dramas of the Elizabethan period.

Famous Architect and Great Writer

Jones and Jonson drifted, as years went on, into a state of resentful jealousy, each thinking that his own share of the work was the more important. Ben Jonson was not the man to feel anything without saying it, and he let all the world know how little he thought of a man who contrived the scenery of a masque compared with the man who wrote the words.

Inigo Jones built many country houses in England, but few remain to prove his skill. His designs, left as drawings, are more admired now than his buildings.

He planned the palace of Whitehall, of which only the Banqueting Hall remains, outside which the king to whom he was faithful, Charles I, was beheaded. And in London one can still see Lincoln's Inn Chapel, and St. Paul's Church, Covent Garden, and the water gate of York House at the bottom of Buckingham Street, Strand—all interesting, but not great works accounting for the great name he once had.



Inigo Jones

PERIL IN THE PLANE TREE

How It Causes Sneezing and Coughing

BEAUTIFUL TREE THAT THRIVES IN TOWNS AND CITIES

By Our Country Correspondent

It is suggested that much of the epidemic of sneezing that has been common in London has been caused by the plane tree, which is a peril to those with weak throats.

This charge against the beautiful plane tree of our towns and cities is not new. It has been made before, but never definitely proved.

One doctor has gone so far as to express the hope that the day may come when all plane trees in London will be destroyed. He believes people suffering from asthmatical complaints should keep as far as possible from the parks and thoroughfares where plane trees grow, but he does not suggest a theory to account for the peril.

Botanical experts pooh-poo the idea altogether, declaring that when the plane tree flowers in the spring, though pollen is scattered in all directions, the particles are too small to do any harm.

There seems, however, to be some evidence that certain people of delicate health are adversely affected by the plane tree. The harm is not caused by the pollen, so it is explained, but by a velvet-like down that forms on the new shoots. This, when disturbed as by a very strong wind, blows about in the air and is breathed in by passers-by. If it finds its way into the throats and noses of some delicate people it sets up irritation and coughing. The down is in the form of fine hairs so thin as to be practically invisible when they float in the air.

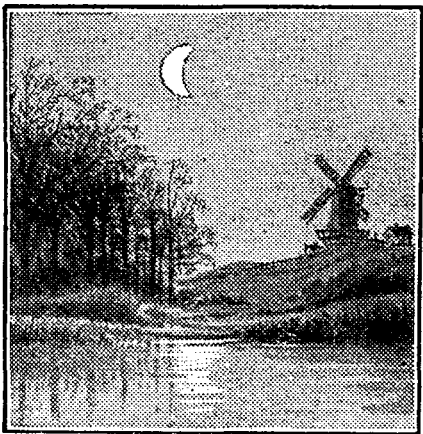
The peril from plane trees, however, is so small that it would be a great pity to see any of them removed from the town and city streets where they grow so well, lending a touch of the country to the most urban district.

The plane—the London plane as it is often called to distinguish it from the Oriental plane—is known for its habit of throwing off its bark in scales, and thus cleaning itself from moss and parasites.

When planes were first planted in London streets it is said that boys were suspected of scraping off the bark, and a watch was kept in order to seize the culprits. But the guilty party proved to be the tree itself.

The plane is a fine tree in leaf, but its timber is of little use, as it easily warps.

THE MOON NEXT WEEK



The moon at 8 a.m., summer time, on June 18

Newspaper Notes and Queries

What is a Standing Cup? A tall, ornamental goblet with cover and foot.

What is a Lock-out? The closing down of a factory by the employers during a trade dispute until terms can be arranged with the workers.

What does P.P.C. mean? Written on a visiting-card left by a friend who is going away, these letters stand for the French *pour prendre congé* and mean, To take leave.

HELP FOR THE SILKWORM

MAKING IT YIELD MORE SILK

China to Extend an Important Industry

VAST SUMS LOST BY IGNORANCE

Scientists of many nationalities are trying to help China to improve her silk industry by strengthening her silkworms.

For centuries China was the only home of the silkworm. Then the creature was smuggled out of the country to Japan and India and Europe, and other countries began to produce silk. But China still remains the greatest silk-producing country in the world, with the exception of Japan, although Chinese methods have not improved for 2000 years, and her important position has been maintained in spite of the ignorance and wastefulness of the Chinese farmer.

Losing Millions of Silkworms

It is estimated that 75 per cent. of China's silkworms die before they reach the silk-spinning stage, and in that country an ounce of eggs produces only from 15 to 25 pounds of cocoons as against 110 to 133 pounds in Japan, France, and Italy.

An international committee is now at work, with headquarters at Shanghai, selecting healthy eggs, which are supplied to those desiring them; and last year 30,000 cards of eggs, representing three quarters of a million layings and many millions of eggs, were disposed of.

Shanghai and Canton have hitherto been the chief centres of China's silk industry, but Nanking is now building up a great silk industry, and is this year asking for 40,000 cards of eggs.

Three provinces, Kiangsi, Anhui, and Chekiang, rear annually about thirty million cards. To supply anything like this quantity of guaranteed healthy eggs would be a gigantic task for the committee, but the University of Nanking is helping in the work, and the Chinese Government is being asked to increase its money grant so that the work of the committee can be extended.

Mainstay of China's Trade

Silk is one of the mainstays of China's export trade, and the result of bringing the industry up to the standard that obtains in Japan, France, and Italy would be an amazing increase of prosperity throughout the country.

One healthy cocoon should produce about a thousand feet of silk thread, and twelve pounds of cocoons should yield more than a pound of raw silk. Sixteen pounds of mulberry leaves are food sufficient for the production of one pound of cocoons, and each mulberry tree holds a hundred pounds of leaves.

The committee hopes now to make China's silk industry one of the richest businesses in the world.

MAN'S STAFF OF LIFE

Wheat 15,000 Years Ago

For 15,000 years man has cultivated certain forms of wheat. A scientist has just been talking about it.

Some of the oldest-known forms are still cultivated in parts of the world. All wheats were originally wild grasses. If our wheat is left to itself, allowed to seed as wild grasses do, it soon goes back to the form from which it sprang.

The different kinds of wheat grown in different climates have each had a separate ancestor. In some cases their ancestry has not been traced; the wild plant which became the cultivated food-stuff has not been identified.

Until the Spaniards went to America wheat was unknown there. It took to the soil readily, and in time America became one of the greatest of the wheat-producing countries.

C.N. QUESTION BOX

Little Puzzles in Natural History

Answered by Our Natural Historian

All questions must be asked on postcards, and not more than one question on each card.

How Long do Golden Carp Live?

We have no authentic records, but in healthy conditions goldfish certainly attain a great age.

Has the Elephant Got a Tongue?

Yes; all mammals and reptiles and nearly all birds have tongues. The elephant's tongue is of great size.

When Does a Hedge Sparrow have its Young?

In favourable seasons a pair of hedge sparrows rear two or three broods of young ones, the first being in March.

Are Lizards ever Eaten by Men as Food?

Savages eat lizards and many other things repulsive to civilised palates, and often eat them uncooked.

Does a Mole Die if One Spot of Blood is Drawn from its Body?

No. This is simply an old country superstition. A mole, like other creatures, only dies when some vital part of its body is injured.

Can Wasps be Kept from a Camping Ground?

Only by tracking the insects home and destroying their nests. The nest is the source of the mischief; the individual wasp is only a symptom.

What Should Homer Pigeons be Fed On?

Every corn-chandler sells a mixture of corn and grain for pigeons, and it is better for beginners to use this than to try foods of their own choice.

What are the Worm-like Marks on the Sea-Shore?

Usually these worm-casts indicate the presence of the lug-worm, or sand-worm. The worms are useful as bait, and at low tide they are to be found in abundance by a little digging.

Of What do Tits Build Their Nests?

The nests of the tits differ with the species. That of the blue tit is placed in a hole in tree or wall and roughly built of dry grass and moss, with a lining of hair, wool, and feathers.

Where do the Snails go to that Leave a Streak in the Kitchen or Cellar?

The streak may be left by a snail or slug, and the creature has crawled into some obscure cavity behind a shelf or fixture, or through an opening into the open air. Slugs sometimes come up a sink outlet pipe.

What Does a Water Boatman Eat?

The beetle known as a water boatman is a flesh-eater, and feeds upon any living thing which it is capable of mastering in its native pond, even members of its own family. Decaying organic matter is one of its favourite foods; the larvae of fish another.

Can a Weasel be Tamed and Taught to Catch Rats and Mice?

Many remarkable things have been done by people skilled in taming animals, but we have never heard of a weasel being set to such a task. It may not be impossible, but the ferret is the better animal for the purpose.

How Can a Cock be Distinguished from a Hen?

When the sexes differ in appearance the male is always the more handsome, with richer colours and distinctive markings; and as cocks crow while hens only cluck and cackle in the poultry-run, so among the musical members the males sing while the hens but twitter.

What is the Bead Bracelet Often Seen Round a Pear Stalk?

It is made of the eggs of the lackey moth, a near relation of the emperor moth. After laying the eggs in this curious way the moth covers them with a varnish that binds them together and protects them from the weather. The explanation of this and many other interesting objects of the countryside will be found with splendid illustrations in the new number of the C.N. monthly—My Magazine for July—now lying on the bookstalls side by side with this paper.

MARS, COMING ON NEAREST PLANET TO EARTH

The Reasons for Thinking There May be Life There

THE WONDERFUL WATERWAYS

By Our Astronomical Correspondent

Mars will be at his nearest to us on Sunday, June 18, when he will be only 42,350,000 miles away, not half as far as the Sun.

He will be the nearest planet to the Earth, and will then be at his brightest, outshining all the celestial orbs except Venus, the silvery gem in the western sky. The reddish Mars will be easily seen low in the south-east about ten.

His popularity just now revives again the old question—Are there people on Mars? The balance of evidence shows that there is no reason why there should not be people there, and that there is more than the probability of life of some sort, even intelligent life. All life as we know it must have water vapour, and air containing oxygen, and wherever these elements are on our Earth there is life, provided there is sufficient of each and the water is not too near boiling point or all frozen solid.

Evidence of Our Eyes

That Mars possesses these elements, as the Earth does, is now beyond question, if we are to believe the evidence of our eyes and the painstaking research of those astronomers best qualified to judge. The snow and ice can be seen to form at the Poles of Mars, expanding to an enormous extent as the Martian winter for that hemisphere advances, and then receding when summer comes.

The axis of this planet is tilted to 24 degrees from the perpendicular compared with the Earth's 23½, and it has, therefore, very similar seasonal changes, only somewhat more so than the Earth. Great masses of ice have been seen to break away and appear to float over the greenish grey area toward more temperate regions. This greenish, or bluish grey, area greatly expands as summer progresses, and obviously it is largely water; but some areas are much lighter than others.

What the Canals Really Are

Faint streaks are seen to extend and multiply as the summer advances; generally they run remarkably straight, most of them toward what are regarded as the arid, reddish equatorial regions.

These streaks stretch across to the opposite Polar seas, or to smaller patches of faint greenish grey, considered to be lakes or bases of vegetation. Some of these are as large as Wales. These streaks are the so-called canals, an unfortunate name, for they are not now generally regarded as waterways, the evidence indicating that they are irrigated areas, fertilised strips of vegetation.

These streaks, or "canals," are from one to ten miles wide and sometimes from 2000 to 3000 miles long. One, the Eumenides-Orcus, is 3500 miles long. They often run into estuaries resembling that of the Severn or Amazon, and probably contain water channels invisible to us. Clouds also are seen to form, blotting out whole areas of the markings.

Work of Thinking Minds

Now, apart from the obviously useful purpose of these streaks, which suggests the presence of guiding minds, there is another remarkable fact. These lines take the shortest route from point to point, each section being arranged more or less geometrically. Nature never follows straight lines, but the mind of man invariably does as far as Nature will allow him—the shortest way between two points making for economy in both time and material.

There are many indirect reasons for inferring the existence of reasoning minds throughout the Universe, but this is the only direct and obvious evidence we have for the existence of intelligences beyond our fair Earth.

G. F. M.

MEN OF THE MIST

The Exciting Adventures of
Two Boys Among the Indians

Told by T. C. Bridges,
the C.N. Storyteller

CHAPTER 39

The Stone Man

ALMOST before the boys had started to wonder what on earth Bart was after, he was out again, dragging a canoe. It was a beautiful birch bark, but in rather bad repair.

"A canoe!" exclaimed Billy. "Where in the world did that come from?"

"Out of the bushes," replied Bart, with a dry smile. "You didn't reckon we were going to swim the river, did ye?"

Billy flushed a little. He knew he should not have asked the question. "She'll want caulking," he said, to cover his confusion.

"Just so. That's why I said we wouldn't be wasting time. The Indians and Jock can do it." He turned to Jock Scarlett. "There's pitch here," he said, "and ye can use the gas fire to melt it. I reckon ye can finish in about two hours, then come right back to supper."

"Right ye are, Bart," replied Jock cheerfully, and at once called the two Indians to help him carry the canoe across to the fire.

Then Bart and the boys turned back up the hill. Arrived at the place where they had left their packs, Bart picked a spot, well hidden, on the river side of the ridge, to light the cooking fire. When this was done and the kettle slung above it he took the boys back to the top of the hill.

Almost at once Clem pointed. And far—far in the distance they saw a tiny point of light hardly larger than a star, which glowed clear through the night.

Bart growled deep in his throat.

"They're a-coming, and a bit quicker'n I reckoned." Then he laughed. "But not quite quick enough, I guess. You're up against it, Mister Ed Pelly, up against it good and hard. My, but I'd admire to see your face about this time tomorrow." He gave no further explanation and the boys asked for none, for both had the most absolute trust in Bart.

Presently supper was ready, and a little while later Jock arrived with Ahkim and Passuk.

"The canoe's good and tight, Bart," he said, in his pleasant voice.

"That's right," replied Bart, "for I guess we'll need her for quite a job tomorrow."

The boys went to sleep wondering what Bart meant, and were up even earlier than usual. Breakfast over, the packs were shouldered and the party marched straight down to the river, where the canoe was launched, and all the stuff stowed carefully in her. Then they got aboard, and pushed off.

Reaching the middle of the river, Bart turned the light craft straight downstream. Billy leaned across and whispered in Clem's ear.

"Where's he taking us? He said the other day that we were going straight up into the mountains."

Clem shrugged his shoulders. "I don't know, Billy, but I expect it's some dodge for putting Pelly's crowd off the scent. Anyhow we shall see before long."

For three or four hours the canoe travelled swiftly downstream. Then the river began to narrow, the black sand vanished, the banks grew higher, and soon they were in a canyon where the big river, penned in a narrow bed, rushed deep and swift between lofty walls of rock.

They swung round a curve, and suddenly Billy stopped paddling and gave a sort of gasp.

"Look, Clem! Look!" he cried, pointing to the right.

Hanging over the river was an enormous crag, which had partly broken away from the cliff behind,

and the shape of it was that of a huge head.

It was impossible to believe that it had not been carved by human hands. There was the forehead, the great blunt nose, and projecting chin. There were the eyes and the mouth all startlingly perfect. The likeness was increased by a mass of scrubby bush growing on the top of the head and resembling hair.

Clem stared at it for a moment with a feeling of almost-terror.

"The—the Stone Man!" he said at last, hoarsely.

"Ay, it's the Stone Man," answered Bart. "And I don't reckon Mother Nature ever carved anything more wonderful here or anywhere else."

"Wonderful!" repeated Clem, staring at the huge, amazing face which had a stern yet not unkind expression. "It's the most wonderful thing I ever dreamed of."

"Well, 'don't dream, paddle,'" said Bart drily, "for you're going to see something a sight more wonderful before you're much older."

CHAPTER 40

Hollow Hill

THE canoe swept on beneath the sphinx-like face of the Stone Man; she drove round a second curve, and from both the boys at once came a cry of amazement—almost terror.

Right in front was a monstrous wall of rock, and at its base the black arch of a vast tunnel, into the gloomy depths of which the whole great river poured—and vanished.

"Sit tight!" cried Bart. "It ain't as bad as it looks."

He turned to the two Indians, whose faces were frozen with superstitious terror, and spoke to them sharply in their own language. It did not seem to do much good, but as the canoe was in the grip of the rapid, and it was impossible to turn, the wretched men stolidly accepted their fate, and, though they clearly expected nothing but instant death, obeyed Bart's orders.

The boys held their breath as the canoe, steered by Bart, shot straight into the centre of the lofty arch. Next moment she was dropping at a giddy speed. The roar of the water penned under the rock roof was deafening.

The sound increased to a deep thunder, and suddenly the canoe swooped downward with a feeling like that of descending in a fast lift. Then almost before Clem and Billy had realised what was happening she had steadied and was floating smoothly on a calm surface.

"And—and it's not dark!" came from Billy. "Look, Clem!" He pointed upward as he spoke, and Clem, looking up, saw, at an immense height above, a great opening—a sort of huge skylight through which the sunlight struck down in long shafts.

"Told ye ye'd see something funny," came Bart's deep voice.

"It—it's a hollow mountain," declared Billy.

"Ye've hit it in once, Billy. We call it Hollow Hill. I don't reckon there's a bigger cave in all the North-West, and they do say Indians lived in here once. Mebbe they do still, for all I know."

The boys looked round with intense interest.

The light from above, bright as it was, was not enough to show the whole of the cave, which stretched away on both sides into dusky distances where all was lost in shadow. As for its height, the roof seemed to be at least a thousand feet above them. The place was staggering in its immensity, and through the centre ran the river,

black as jet, deep, swift, but smooth. "Give Pelly something to think about—eh, boys?" said Bart, with a deep chuckle.

"If it scares him any worse than it did me, he'll never recover," grinned Billy.

"If you were scared, you've got over it mighty quick," said Bart approvingly. "And now I'll tell ye there ain't anything more to be scared of unless those pesky Kaloots get after us."

"Indians?" questioned Clem.

"Ay, bad Indians. And we're getting into their country once we're out o' this. But I'm hoping they'll be on the river catching salmon, and if that's so mebbe we won't see anything of them."

It took about twenty minutes to pass through the hollow hill, then the canoe cut a short, swift rapid, and glided out again into brilliant sunshine.

There were still cliffs on either side, but not as lofty as before, and presently these dropped to wooded banks, and the river broadened.

"Keep your eyes skinned," said Bart. "If ye sees anything, sing out quick."

A couple of fish-hawks wheeled overhead, but beyond these there was no sign of life; yet Bart slowed the pace of the canoe, and they paddled cautiously till they reached a pebbly beach on the right bank, with a thick clump of trees behind it.

Here Bart steered the canoe ashore, and they all landed.

Bart himself carefully chose the spot for caching the canoe, and when this was done the party shouldered their packs and struck inland towards the mountains.

It was not bad going, and by nightfall the little party was high among the hills, and had left the river miles behind. The boys hoped that all was well, but Bart did not seem quite easy. He picked a thick grove in which to camp, and would only allow a very small fire.

The night, however, passed quietly enough, and morning found them climbing again. The great mountains they had seen ahead for nearly a week now towered above them in solemn majesty, and the air was colder than they had felt it since passing over the Coast Range.

They had been travelling for about two hours when Passuk suddenly pulled up and pointed to the ground. Bart stooped and examined the spot, and the boys saw that he was looking decidedly grave.

"Indians?" Clem ventured.

Bart nodded.

"Kaloots. A hunting party. I only wish I knew just which way they'd gone."

A NEW Paper

which will tell you
all about WIRELESS

Popular Wireless is a new weekly paper, beautifully illustrated with photographs, which explains in simple non-technical language the greatest scientific wonder of the age. Step by step it will make clear how you and your friends may enjoy to the full the advantages of wireless. Buy your copy TODAY.

Ask for

POPULAR WIRELESS

Every Friday

CHAPTER 41

Bad Indians

"DON'T any of ye make a sound if ye can help it," Bart ordered. "It's a mighty still day, and a dry stick cracking under your feet can be heard a mile off by those Indians. So I just warn ye to be mighty careful."

The boys and Jock did their best to obey, but marching over rough ground is none too easy at any time, and the strain of doing it quietly became more and more heavy as the day wore on.

They ate their dinner silently, hidden in a patch of thick bush, then went on as quietly as before, still climbing the giant slope which stretched upward mile after mile.

The boys kept their eyes fixed on the ground, and every muscle in their legs was aching with the strain of going so soft-footed. It was all the harder because Bart carefully avoided all open ground, and kept to the thickest part of the woods.

Well on in the afternoon they came to open, park-like ground, with patches of trees scattered here and there. Beyond this, some two or three miles away, the mountains rose like a wall.

Bart stopped and spoke in a low voice to Ahkim, who shook his head.

"I believe Ahkim is scared of crossing the open," said Billy to Clem.

"But Bart wants to push on," replied Clem. "Billy, I believe we're getting pretty near the end of our journey."

"I believe so, too. Bart said it was in those mountains. I say, Clem, I hope we're going to keep right on."

Clem did not answer, for secretly he was feeling rather doubtful. If this Indian hunting party were about, here was just the country for them. Several caribou were visible in the distance, grazing on the rich grass.

He looked at Bart again, and felt certain that Billy was right, for Bart had stopped speaking, and Ahkim was looking anything but happy.

Next minute Bart turned to Jock and the boys.

"I guess we'll try and make it," he said. "It's risky, I'll allow, but in my notion it would be a heap more risky to stop here. Ye see, if the Indians happen to hit our trail they'd slip upon us after dark, and then there wouldn't be a dog's chance for any of us."

"Just as you say," Jock answered quietly, and after a last careful survey of their surroundings the party started once more.

Bart led the way from one clump of trees to the next, and they covered rather more than a mile without anything happening. Then, without the slightest warning, a figure rose into view on the crest of a little grassy rise some four hundred yards away to the left.

In the clear air they could see that he was a man of middle height, wearing only a breech clout and moccasins, and that he carried bow and arrows. The low sun shone full on a streak of red paint across his face, and on a tuft of feathers in his hair.

Bart stopped short, half raised his rifle, then lowered it.

"No," he said curtly. "I reckon we've got to wait for them to begin. Boys, just walk right along. Don't run till I give the word."

The rest obeyed, but Clem's and Billy's eyes were on the Indian. Presently he was joined by four others. They stood for a moment or two, staring at the party of whites, then all disappeared again behind the crest of the knoll.

Bart quickened his stride.

"Keep right close to me," he ordered. They had covered perhaps half a mile when Clem's sharp eyes caught a movement among some trees to the left. He told Bart.

Bart looked and nodded.

"Drop your packs," he said. "Drop everything except your rifles and ammunition. If we've got to run, we'll run light."

TO BE CONTINUED

Who Was He?

Scholar & Gentleman

IN the old days schools were not the pleasant places they are today, and the punishments were often so severe that nervous boys used to go in fear and trembling.

Towards the close of the 17th century a small boy, a rector's son, attended a country school of a severe kind, and so scared was he at the thought of punishment that he ran away.

Later, he was sent to the Charterhouse School in London, where he made the acquaintance of another boy, who was to be his friend and colleague in later life. After taking a degree at Oxford University he began to write, and then, having obtained a Government pension of £300 a year, he went travelling for four years on the Continent.

When William III died in 1702 the pension was stopped, and the young man had to find some other means of livelihood, so he became a tutor for a short time. Then, returning to England, he wrote a poem celebrating the Battle of Blenheim, which had just been fought, and, as a result, he was given an office under the Government, and afterwards went to Ireland as secretary to the Lord Lieutenant. There he met a famous author, with whom he formed a friendship.

Meanwhile his old school friend had started a paper, and to this the young man contributed a number of articles. Then he started a paper of his own, in which he wrote a great deal, and the paper is still read today, having been reprinted again and again and bound up in volume form in most of the libraries of English masterpieces that are issued by the publishers.

His income had now greatly increased, and he bought an estate near Rugby for £10,000.

For the next few years his time was divided between Government service and literary work, and when he was over forty he married a countess.

His life was almost wholly without dramatic incidents, but he left a great mark on English literature, and every school boy and girl at some time or other reads some of the essays he wrote in his paper. It is by this paper that he is best known today, although most of our hymn-books contain one or two familiar hymns written by him.

His writings are full of wit and have a quiet humour, and his essays have no equal in English literature.

His health failed, and in his last years he was a great sufferer, but through it all he was, as a biographer has described him, "modest, mild, a scholar, a gentleman, a poet, and a Christian." What finer testimony could any man have? Here is his portrait. Who was he?





Now Dawns a Heavenly Day that Cannot Die



D! MERRYMAN

MOTHER (reprovingly): "You are a bad boy, Reggie! You have not washed your face as I told you to do!"

Reggie: "I have, Mother, really; if you don't believe me, just have a look at the towel."

How Old are They?

"How old is your elder brother Jack?" asked a friend of Gerald.

"Two-thirds of my age," replied Gerald, "is just five-twelfths of his, and he is nine years older than I."

How old are Jack and Gerald?

Answer next week

When is a tree as comfortable as a bed?

When it's down.

Is Your Name Barton?

BARTON really means barley town, or the enclosure where the barley was grown, and the early bearers of this name were descended from someone who lived near or owned a barley field and whose Christian name was distinguished from another similar name by adding the barley-field description.

What are They Doing?



Can you see what games the girl and the boy are playing? Solutions next week

Stolen Property

MEETING an old darky after church one Sunday, the clergyman stopped and spoke to him.

"Sambo," he said, "that turkey you sold me as a tame one was wild. It was full of shot."

"No, sah!" replied the darky. "In spite of the shot dat turkey was a tame one. De shot was meant for me!"



Adventures of Augustus & Marmaduke

AUGUSTUS said to Marmaduke, "I'm sure you wouldn't dare To put this piece of sticky soap on our professor's chair."

But Marmaduke just took the soap and placed it on the seat.

"This is a joke," Augustus said, "that all our jokes will beat!"

Professor Long came stalking in, "Why, bless my heart!" said he, "Those naughty boys want washing; they're dirty as can be!"

Then, looking down upon the chair, he saw the piece of soap: "For such a piece of luck," he said, "I couldn't even hope!"

He took young Gus and Marmaduke and washed and scrubbed them well.

"Your joke," he said to Marmaduke, "has turned out quite a sell."

A Healthy Appetite

WHEN our Bill first had oysters he sate

And ate on, till the waiter gasped "Wait!"

Ain't you leaving the shells?"

"No!" said Bill, "nor nowt else; I don't leave no bits on my plate!"

The Zoo that Never Was



The Sillisuch

THE supper of the Sillisuch Is just one berry—that's not much!

Who in the world would dream that it'll

Thrive so well upon so little?

Not Well Expressed

A GRATEFUL couple who had received help from friends and neighbours in extinguishing a fire at their home inserted an advertisement in the local paper expressing their thanks. It read thus:

"Mr. and Mrs. Jones wish to express thanks to their friends and neighbours who so kindly assisted at the burning of their residence last night."

WHAT is the difference between a burglar and a wig?

One has false keys and the other has false locks.

Mildred's and Mary's Nature Notes

The Shell-Snail

BECAUSE she always carries, Wherever she may go, Her miniature pagoda, Or little bungalow, A snail may even wander From Singapore to Rome, And back again to Asia, Yet never leave her home.

We used to think her stupid For hiding out of sight, But now we know that instinct Has guided her aright; For should a thrush come tapping Upon her spiral dome, She knows that he will eat her Clean out of house and home.

The Wisdom of Winnie

"HERE is a little maxim for you," said Winnie, handing to her small brother a piece of paper on which was written the following inscription:

B not X either T or.

Jack puzzled his brains, and after a few minutes was able to make sense of it.

See how quickly you can find the meaning. Solution next week

WHAT does the C.N. say to its readers?

Every week, in every respect, I get—what do you think?

ANSWERS TO LAST WEEK'S PUZZLES

Puzzle Proverbs

Honesty is the best policy. He who goes a-borrowing goes a-sorrowing.

A stitch in time saves nine.

Events in History Battle of Barnet, 1471

What Words Are These? Beam; Be, am

Jacko Finds a Dog

BELINDA was complaining that the house was lonely. "It's too far away from everywhere," she said. "There's nobody to talk to when I've done my work."

"What about me?" asked her husband.

"You!" said Belinda scornfully. "I never set eyes on you these days. Directly you've had your tea, you're off to your precious garden."

"Ah," said Joe, taking off his coat, and hanging it up behind the kitchen door, "you'll be pleased enough when the roses come out. And the new potatoes and the beans. You're very partial to beans, Belinda."

"Get along with you," snapped Belinda. "I'm sick of the garden! You think of nothing else."

But Joe was halfway down the path by then, looking around for his tools.

"What you want," remarked Jacko, "is a nice dog. I'll get you one if you like."

"No, thank you," said Belinda. "You got one once before."

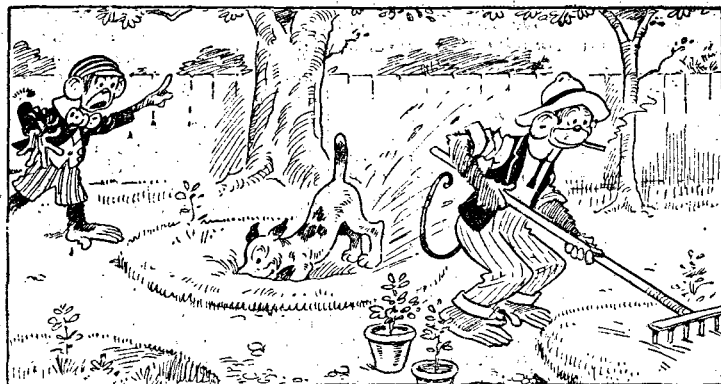
Jacko had hoped she had forgotten it.

"I don't mean a big chap like that," he said. "A jolly smart little terrier, you know." Jacko liked terriers, and he thought that if he couldn't have one at home, the next best thing would be to have one available at Belinda's.

Curiously enough, as he went home that day a dog rushed up to him and made a regular fuss of him.

"You are a friendly little beggar," declared Jacko, giving him a friendly dig in the ribs and rolling him over.

To Jack's surprise the dog got up, rushed at him, and rolled him over. But he was quite friendly about it. He seemed to



The dog was all over it

enjoy a rough-and-tumble. He got frightfully excited in no time, and began tearing round like a mad thing.

Jacko thought he was the best dog he had struck for a long time. "You're the dog for Belinda!" he cried. "She'd never feel lonely while you were about."

He ran off back to the new house, calling the dog after him.

"Look what I've found, Belinda!" he cried.

The dog didn't wait to be introduced. In a bound he was past the door and into the garden, careering gaily all over Joe's precious ground, trampling on the seeds, and rolling on the plants—all in the most friendly way.

Poor Joe was nearly frantic.

"Stop the brute!" he screamed. "Call him off!"

Jacko did his best, but he took some calling, and, before Jacko had got him out, and shut the gate on him, the mischief was done.

Joe was furious, and Belinda, poor soul, was lonelier than ever, for Joe had all his work to do over again.

The paragraph on the right is a French translation of the paragraph on the left

The Two Thrushes

At a house in Smethwick a female song thrush has been kept caged for a long time. One morning recently another thrush, evidently a male, flew to the cage and beat its wings persistently against the wires, apparently in an endeavour to get inside.

It repeated this behaviour for several days, and the two birds appeared to greet each other by touching their beaks together. About a week after the first visit the male bird was found dead on the floor beneath the cage, having beaten its life out against the bars of the prison of its mate.

Since then the caged bird has not sung a note.

Les Deux Grives

A une maison de Smethwick une grive femelle est depuis longtemps en cage. Un matin, tout récemment, une autre grive, évidemment un mâle, s'élança vers la cage et battit des ailes avec persistance contre les barreaux, s'efforçant apparemment de pénétrer à l'intérieur.

L'oiseau se conduisit ainsi pendant plusieurs jours, et les deux grives semblaient se saluer en se touchant du bec. Environ huit jours après sa première visite, on trouva le mâle mort sur le plancher, au-dessous de la cage: il s'était tué à force de lutter contre les barreaux de la prison où était enfermée sa compagne. Depuis lors l'oiseau en cage ne chante plus.

Tales Before Bedtime

Old Friends

BETTY loved her dolls—all six of them—but Jimmy was the favourite.

Jimmy had such a jolly, good-tempered face, and he looked so funny when he stood on his head.

Once upon a time he would stand on his head by himself, and go through the funniest antics. He could do it still if you gave him a helping hand at the right moment.

It was no wonder that Jimmy was the favourite.

But that was before Lady Isabel came.

Lady Isabel arrived on Betty's sixth birthday, and she was so grand and beautiful, and she wore such wonderful clothes, that she almost took Betty's breath away.

It took quite a long time to look after such an important person, and the other dolls began, alas! to be neglected.

Instead of the jolly little family of six that Betty took out every day in her little perambulator, there were now only two—Lady Isabel and Jimmy. Lady Isabel was far too important to be crushed up in a crowd.

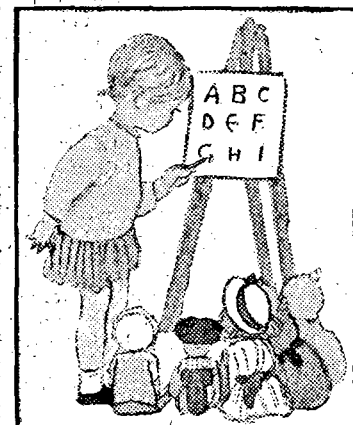
Soon Jimmy was left behind, too; he looked so shabby beside Lady Isabel.

Three times Lady Isabel went out all alone in great state, and then something terrible happened.

At the top of the High Street one day a great clumsy butcher-boy swung suddenly round the corner, bumped into Lady Isabel's carriage, and toppled it over.

Lady Isabel fell out with a crash, and when Betty flew to pick her up the poor thing was smashed to bits. The delicate pink-and-white face was nothing but a heap of broken china.

Poor Betty! The tears



Betty loved her dolls

streamed down her cheeks as she went slowly home.

But the first thing she saw as she opened the nursery door was the happy face of Jimmy, standing on his head in the corner where she had flung him the day before.

Betty smiled. After all, she still had Jimmy. Nothing could spoil Jimmy's beauty. He was there for ever and ever.

The Children's Newspaper grew out of My Magazine, the monthly the whole world loves. My Magazine grew out of the Children's Encyclopedia, the greatest book for children in the world.

CHILDRENS NEWSPAPER

June 17, 1922

Every Thursday, 2d.

The C.N. is posted anywhere abroad for 11s. a year; inland, 13s. My Magazine, published on the 15th of each month, is posted abroad for 14s.; Canada, 13s. 6d; British Isles, 14s. 6d. See below.

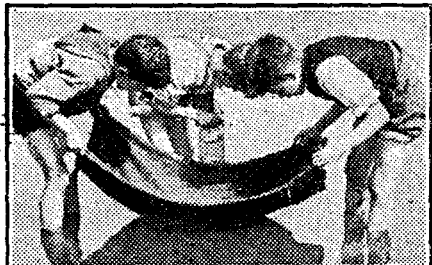
EDMUND BURKE FOR AMERICA • NEST ON A STATUE • FISHERMEN IN HYDE PARK



Edmund Burke for America—A striking statue of Burke presented to America by Sir Charles Wakefield, which is to be unveiled at Washington by President Harding



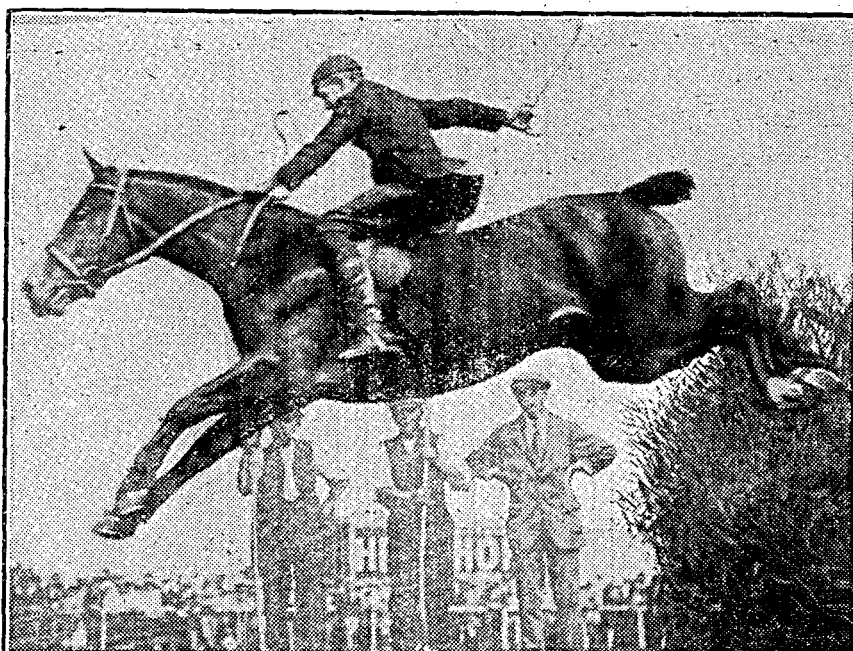
Refreshment for the Hippo—A visitor giving an orange to the hippopotamus at the Zoo



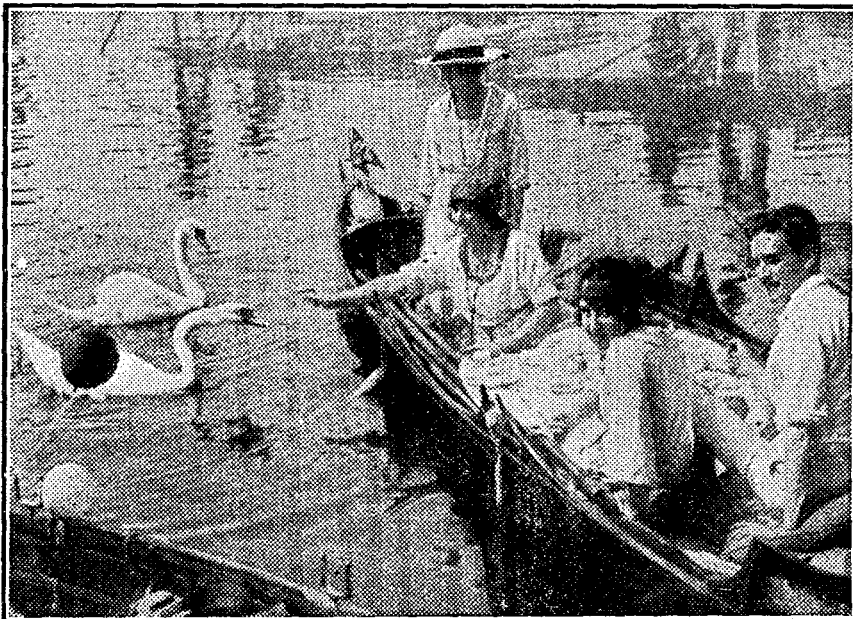
Fishermen in Hyde Park—These boys catching tiddlers in the Serpentine in Hyde Park, London, are evidently working on a wholesale scale and the co-operative principle



A Basketful of Mischief—A pretty little puppy born at the quarantine station at Hackbridge, Surrey, where its mother was detained on first coming to England from the Continent



A Young Horseman's Fine Jump—Master E. F. C. Smith on his horse Don, that won the second prize at the Royal Counties Show at Guildford. Here he is seen taking a hurdle



Feeding the Swans on the Thames—During the luncheon hour at Molesley Regatta on the Thames, the swans were not forgotten, and the stately birds appreciated the attention



The Drummer Girls' March Past—A fine march past of the Girl Guides at the recent Empire Day Parade in Hyde Park, when the Duke of Connaught took the salute. The Guides were headed by their drummers, who helped them to keep step, and very smart and impressive they looked as they passed. The girls appeared exceedingly keen and enthusiastic



Missel Thrush Builds on a Statue—A missel thrush's nest built on the arm of a statue at Glamorgan. The figure appears to be watching the bird as it settles on the nest



A New Way of Seeing the Zoo—A young visitor to the Zoo was recently carried round from cage to cage in a canvas bag slung from the shoulders of two grown-up friends



The Youngest Motorist in London—This baby motor-car, driven by electricity, with electric lamps complete, was driven by its young owner through Hyde Park recently